APPENDICES

APPENDIX 1

MEMBER LIST
OF THE SURVEY TEAM

APPENDIX – 1 MEMBER LIST OF THE STUDY TEAM

1) First Field Study in the People's Republic of Bangladesh

Mr. Yoshikazu YAMADA	Leader	Director of 3rd Project Management Div., Grant Aid Management Dept., JICA
Mr. Kunihiko SAWANO	Chief Consultant/ Road Traffic Planner	Katahira & Engineers International
Mr. Yasuaki MURAMOTO	Bridge Planning Engineer 1	Katahira & Engineers International
Mr. Terumi MOCHIZUKI	Bridge Planning Engineer 2	Katahira & Engineers International
Mr. Shigeru MATSUI	Bridge Planning Engineer 3	Katahira & Engineers International
Mr. Kozo TOYODA	Natural Condition Survey Engineer (Topography)	Katahira & Engineers International
Mr. Masao AIZAWA	Natural Condition Survey Engineer (Geography)	Katahira & Engineers International

2) Second Field Study in the People's Republic of Bangladesh

Mr. Yoshikazu YAMADA	Leader	Director of 3rd Project Management Div., Grant Aid Management Dept., JICA
Mr. Hidetaka SAKABE	Project Coordinator	Staff, Third Project Management Div., Grant Aid Management Dept., JICA
Mr. Kunihiko SAWANO	Chief Consultant/ Road Traffic Planner	Katahira & Engineers International
Mr. Yasuaki MURAMOTO	Bridge Planner Engineer 1	Katahira & Engineers International
Mr. Terumi MOCHIZUKI	Bridge Planning Engineer 2	Katahira & Engineers International
Mr. Shigeru MATSUI	Bridge Planning Engineer 3	Katahira & Engineers International
Mr. Kozo TOYODA	Natural Condition Survey Engineer (Topography)	Katahira & Engineers International
Mr. Masao AIZAWA	Natural Condition Survey Engineer (Geography)	Katahira & Engineers International
Mr. Seizo YAMADA	Natural Condition Survey Engineer 3 (Hydrology)	Katahira & Engineers International
Mr. Kazuyuki HIRAOKA	Construction Planner/ Cost Estimator	Katahira & Engineers International

3) Explanation of Draft Report

Mr. Katsutoshi KOMORI	Leader	Staff, 3rd Project Management Div., Grant Aid Management Dep., JICA
Mr. Kunihiko SAWANO	Chief Consultant/ Road Traffic Planner	Katahira & Engineers International
Mr. Yasuaki MURAMOTO	Bridge planning Engineer 1	Katahira & Engineers International

APPENDIX 2

SURVEY SCHEDULE

APPENDIX – 2 STUDY SCHEDULE

1) First Field Survey (September 2, 2000 to October 11, 2000)

No.	Date		Activities
1	2000/Sep. 2	Sat	• Tokyo to Bangkok (Messrs. Sawano, Muramoto, Mochizuki, Matsui, Toyoda).
2	Sep. 3	Sun	• Bangkok to Dhaka. • Courtesy call and Discussion with JICA Bangladesh Office.
3	Sep. 4	Mon	• Discussion with RHD.
4	Sep. 5	Tue	• Discussion with RHD. • Mr. Aizawa arrived at Dhaka.
5	Sep. 6	Wed	• Orientation for Field Survey in Dhaka district.
6	Sep. 7	Thu	• Discussion with RHD.
7	Sep. 8	Fri	• Mr. Yamada (Leader) arrived at Dhaka. • Team A (Messrs. Sawano, Muramoto, Aizawa), Data Collection and Analysis. • Team B (Messrs. Mochizuki, Matsui, Toyoda) moved to sites.
8	Sep. 9	Sat	• Internal Meeting (Leader & Team A)
9	Sep. 10	Sun	• Courtesy call and Discussion with ERD, MOC & RHD.
10	Sep. 11	Mon	• Discussion with RHD.
11	Sep. 12	Tue	• Signing of Minutes of Discussion. • Meeting with JICA Bangladesh Office. • Report to Embassy of Japan. • Mr. Yamada (Leader) left Dhaka.
12	Sep. 13	Wed	• Team A moved to sites.
13 ~14	Sep. 14 ~ 15	Thu Fri	• Site Survey.
15	Sep. 16	Sat	• Mr. Sawano came back Dhaka.
16	Sep. 17	Sun	• Meeting with JICA Bangladesh Office (Mr. Sawano).
17	Sep. 18	Mon	• Mr. Sawano left Dhaka.
18 ~25	Sep. 19 ~ 26	Tue Tue	• Site Survey.
26 ~30	Sep. 27 ~ Oct. 1	Wed Sun	• Data Analysis.
31	Oct. 2	Mon	• Data Analysis. • Mr. Sawano arrived at Dhaka.
32 ~34	Oct. 3 ~ Oct. 5	Tue Thu	• Data Analysis.
35	Oct. 6	Fri	• Data Analysis. • Mr. Aizawa left Dhaka.
36 ~37	Oct. 7 ~ Oct. 8	Sat Sun	• Data Analysis.
38	Oct. 9	Mon	• Meeting with RHD. • Report to JICA & Embassy of Japan.
39	Oct. 10	Tue	• Messrs. Sawano, Muramoto, Mochizuki, Matsui, Toyoda left Dhaka.
40	Oct. 11	Wed	• Arrived at Tokyo.

2) Second Field Survey (November 18, 2000 to January 6, 2001)

No.	Date		Activities
1	2000/Nov. 18	Sat	• Tokyo to Bangkok (Messrs. Sakabe, Sawano, Muramoto, Mochizuki, Matsui, Toyoda, Hiraoka).
2	Nov. 19	Sun	• Arrived at Dhaka. • Courtesy call on JICA Bangladesh Office.
3	Nov. 20	Mon	• Courtesy call on MOC and RHD.
4	Nov. 21	Tue	• Site Survey in Dhaka (Messrs. Sakabe, Matsui). • Discussion with RHD. • Preparation for Site Survey.
5 ~7	Nov. 22 Nov. 24	Wed Fri	• Discussion with RHD (Messrs. Sawano, Muramoto). • Moved to Sites (Messrs. Sakabe, Mochizuki, Matsui, Toyoda, Hiraoka).
8	Nov. 25	Sat	• Messrs. Yamada (Leader), Aizawa, S. Yamada arrived at Dhaka. • Internal Meeting.
9	Nov. 26	Sun	• Courtesy call on ERD, RHD & MOP • Courtesy call on Embassy of Japan (Messrs. Yamada (Leader), Sakabe, Sawano).
10	Nov. 27	Mon	• Discussion with MOP
11	Nov. 28	Tue	• Discussion with RHD
12	Nov. 29	Wed	• Signing of Minutes of Discussion. • Meeting with JICA Bangladesh Office.
13	Nov. 30	Thu	• Report to Embassy of Japan. • Messrs. Yamada (Leader), Sakabe left Dhaka.
14	Dec. 1	Fri	• Mr. Sawano left Dhaka.
15 ~18	Dec. 2 ~Dec. 5	Sat Tue	• Site Survey.
19 ~38	Dec. 6 ~ 25	Wed Mon	• Site Survey. • Data Analysis.
39 ~42	Dec. 26 ~Dec. 29	Tue Fri	• Data Analysis.
43	Dec. 30	Sat	• Mr. Sawano arrived at Dhaka. • Data Analysis. • Internal Meeting.
44	Dec. 31	Sun	• Discussion with RHD. • Data Analysis
45	2001/Jan. 1	Mon	• Data Analysis.
46 ~47	Jan. 2 ~Jan. 3	Tue Wed	• Meeting with DPWH.
48	Jan. 4	Thu	• Meeting with JICA Bangladesh Office. • Report to Embassy of Japan.
49	Jan. 5	Fri	• Messrs. Sawano, Muramoto, Mochizuki, Matsui, Toyoda, Hiraoka, Aizawa, S. Yamada left Dhaka.
50	Jan. 6	Sat	• Arrived at Tokyo.

3) Explanation of Draft Report (March 9, 2001 to March 15, 2001)

No.	Date		Activities
1	2001/Mar. 9	Fri	• Tokyo to Bangkok (Messrs. Komori, Sawano, Muramoto).
2	Mar. 10	Sat	• Arrival at Dhaka (Messrs. Komori, Sawano, Muramoto). • Internal Meeting.
3	Mar. 11	Sun	• Meeting with Embassy of Japan and JICA. • Explanation of Draft Report to RHD.
4	Mar. 12	Mon	• Courtesy call on MOC, MOP, ERD. • Discussion with RHD.
5	Mar. 13	Tue	• Discussion with RHD on Minutes of Discussion. • Signing of Minutes of Discussion. • Report to JICA Bangladesh Office • Mr. Muramoto left Dhaka.
6	Mar. 14	Wed	• Messrs. Komori, Sawano left Dhaka.
7	Mar. 15	Thu	• Messrs. Komori, Sawano arrived at Tokyo.

APPENDIX 3

LIST OF PARTIES CONCERNED IN THE GOVERNMENT OF BANGLADESH

APPENDIX-3 LIST OF PARTIES CONCERNED IN THE GOVERNMENT OF BANGLADESH

Economic Relations Division (ERD), Ministry of Financ

Mr. Sarkar Kamal	: Additional Secretary
Mr. Kamrul Hasan	: Deputy Secretary
Mr. A.K.M. Nashirul Huq	: Deputy Secretary
Mr. Md. Emran	: Sr. Assistant Secretary

Ministry of Planning (MOP)

Mr. Engr. Sk. Mainuddin Ahmed	: Division Chief, Planning Commission

Ministry of Communication (MOC)

Mr. Md. Shahidullah	: Joint Chief, Planning
Mr. M. Abdul Malek	: Deputy Chief, Roads & Railways Devision
Mr. Md. Golam Kibria	: Deputy Chief, Engineering

Roads and Highways Department (RHD), Ministry of Communication

Mr. Md. Fazlul Haque	: Chief Engineer
Mr. Abdus Sattar	: Additional Chief Engineer, Technical Services
Mr. A.M.G.Mahmud Choudhury	: Additional Chief Engineer, Network Management & BOT
Mr. Munshi Mustafizur Rahman	: Superintending Engineer, Procurement & Monitoring Circle
Mr. M.N. Masudul Huque	: Superintending Engineer, Planning & Programming Circle
Mr. Md. Serajul Islam	: Superintending Engineer, Bridge Design Circle, East
Mr. M.A. Jaiqirdar	: Superintending Engineer, Bridge Design Circle, West
Mr. Md. Abdul Bashar Khas	: Executive Engineer, Procurement Civil Division
Mr. Dalil Uddin	: Executive Engineer, Bridge Design Division-II, East

Mr. Md. Afil Uddin	: Sub-Divisional Engineer, Bridge Design Division-II, East
Mr. Md. Abdul Quadir	: Sub-Divisional Engineer
Mr. Riaz Ahmad Jaber	: Sub-Divisional Engineer, HDM Database Division
Mr. A.Awal Molla	: Assistant Engineer, Bridge Design Division-II, East
Mr. Syed Faizul Islam	: Sr. Economist

APPENDIX 4

MINUTES OF DISCUSSION

1. First Field Survey

MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY
ON THE PROJECT FOR IMPROVEMENT OF STEEL BRIDGES
FOR ROADS IN RURAL AREAS
IN THE PEOPLE'S REPUBLIC OF BANGLADESH

In response to a request from the Government of the People's Republic of Bangladesh (hereinafter referred to as "Bangladesh"), the Government of Japan decided to conduct a Basic Design Study on the Project for Improvement of Steel Bridges for Roads in Rural Areas (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency(hereinafter referred to as "JICA").

JICA sent to Bangladesh the Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Mr. Yoshikazu Yamada, Director, 3rd Project Management Division, Grant Aid Management Department, JICA, and is scheduled to stay in the country from September 3, 2000 to October 10, 2000. The Team held discussions with the officials concerned of the Government of Bangladesh and conducted a field survey at the study area.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Dhaka, September 12, 2000

Yoshikazu Yamada
Leader
Basic Design Study Team
Japan International Cooperation Agency

A. K. M. Nashirul Huq
Deputy Secretary
Economic Relations Division
Ministry of Finance

M. Abdul Malek
Duputy Chief
Roads & Railways Division
Ministry of Communication

12/9/2000

Md. Serajul Islam
Superintending Engineer RHD
Bridge Design Circle-East

ATTACHMENT

1. Objective of the Project

The objective of the Project is to rehabilitate and improve the road communication of the country by supplement of the steel materials of superstructures necessary for construction of the road bridges.

2. Project Sites

The requested sites of the Project are located in 18 Thana in 4 zones of Bangladesh (Project sites map is shown in Annex-1). However the final sites of the Project will be decided by the Team after further studies in Japan.

3. Responsible and Implementing Agency

The responsible and implementing agency is Roads and Highways Department (RHD), Ministry of Communication (Organization Chart of RHD is shown in ANNEX-2)

4. Items Requested by the Government of Bangladesh

After discussions with the Team, the steel materials of superstructure and erection tools were requested by Bangladesh side, which were necessary for constructing bridges listed in ANNEX-3.

However, the final components of the Project will be decided by the Team after further studies in Japan.

5. Japan's Grant Aid Scheme

5-1. Bangladesh side understands the Japan's Grant Aid Scheme explained by the Team, as described in ANNEX-4.

5-2. Bangladesh side will take the necessary measures, as described in Annex-5, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

6. Schedule of the Study

6-1. The consultants will proceed to further studies in Bangladesh until October 10, 2000.

6-2. Based on the Minutes of Discussion and field study, JICA will prepare the Interim report in English and dispatch a team by the end of November 2000 in order to explain and confirm the contents, then the team will proceed to the second field study.

6-3. Based on the second field study, JICA will prepare the Draft Basic Design Report in English and dispatch a team in March 2001 in order to explain and confirm the contents.

6-4. In case that the contents of the report are accepted in principle by the Government

of Bangladesh, JICA will complete the final report and forward it to the Government of Bangladesh by May 2001.

7. Other Relevant Issues

(1) Design work of substructure and construction of all bridges and connecting roads are responsibilities of the Government of Bangladesh.

(2) The Government of Bangladesh has understood that demolition of existing bridges shall be borne by Bangladesh side in all cases when there are bridges existing at Project sites.

(3) Bangladesh side requested the consultant service for (a) substructure designing, (b) superstructure erection planning, (c) training of erection works for several bridges as one of the components of Grant Aid.

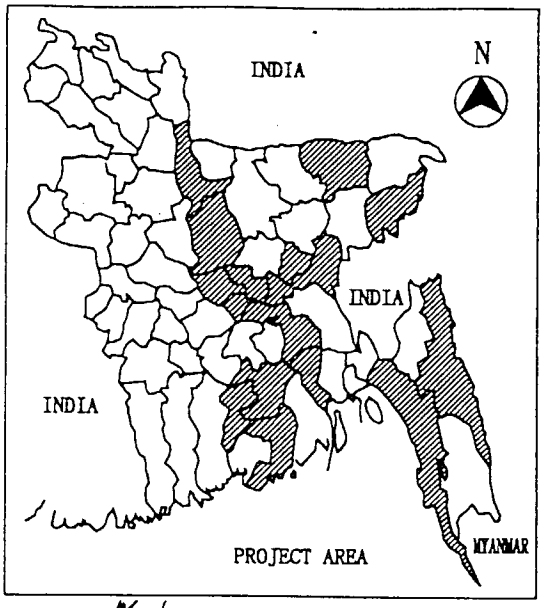
(4) The Government of Bangladesh should complete the construction of all bridges in 2 years from the date of the procurement of the materials.

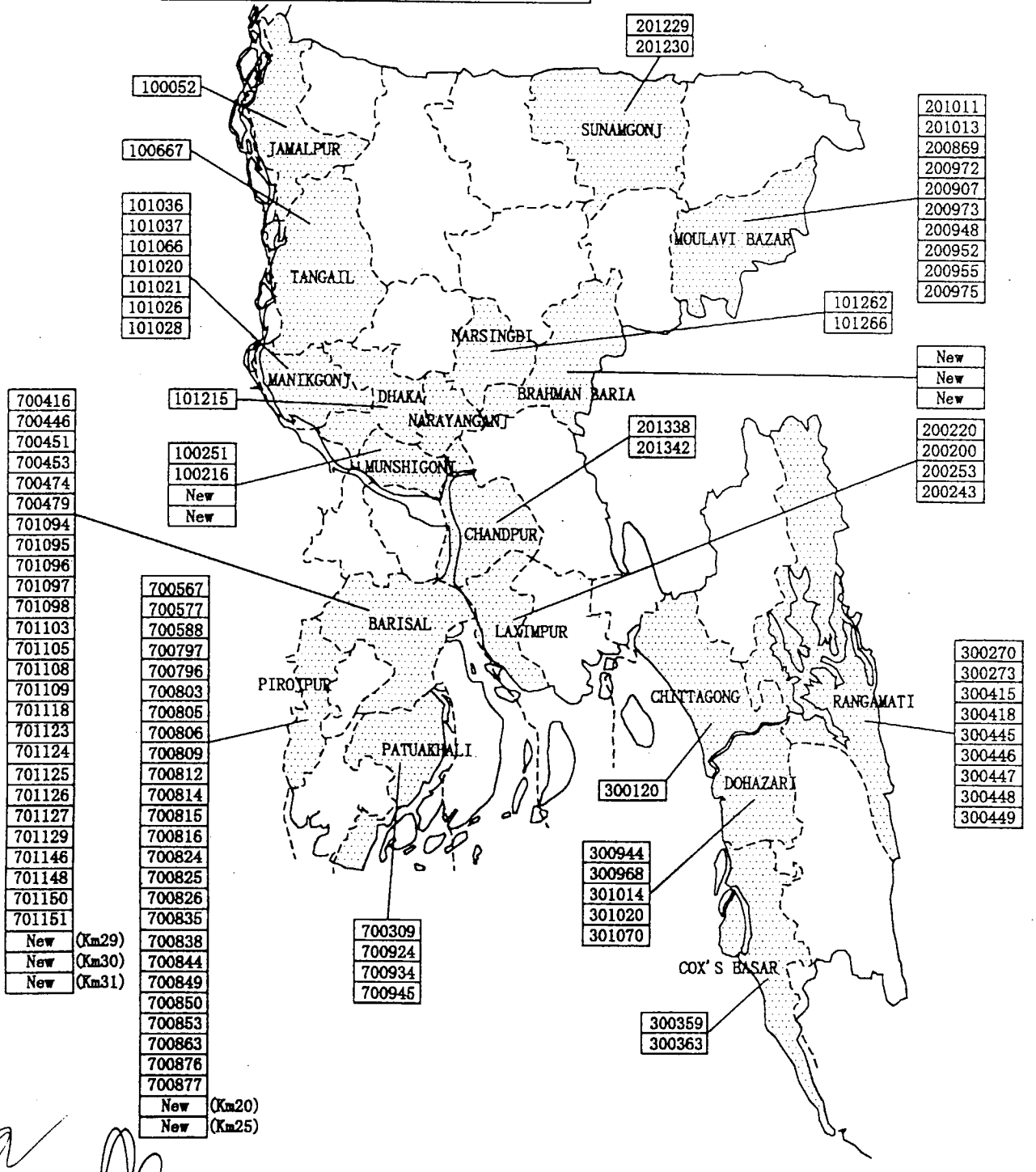
(5) The Project Concept Paper for this project should be authorized to achieve this project, therefore the Government of Bangladesh shall take necessary procedure for authorization until the end of December, 2000.

(6) The Government of Bangladesh has agreed to provide necessary number of counterpart personnel to the Team during the period of their studies.

(7) The Government of Bangladesh shall secure the land for bridges and connecting roads construction/improvement and stock yard of materials until May 31, 2001.

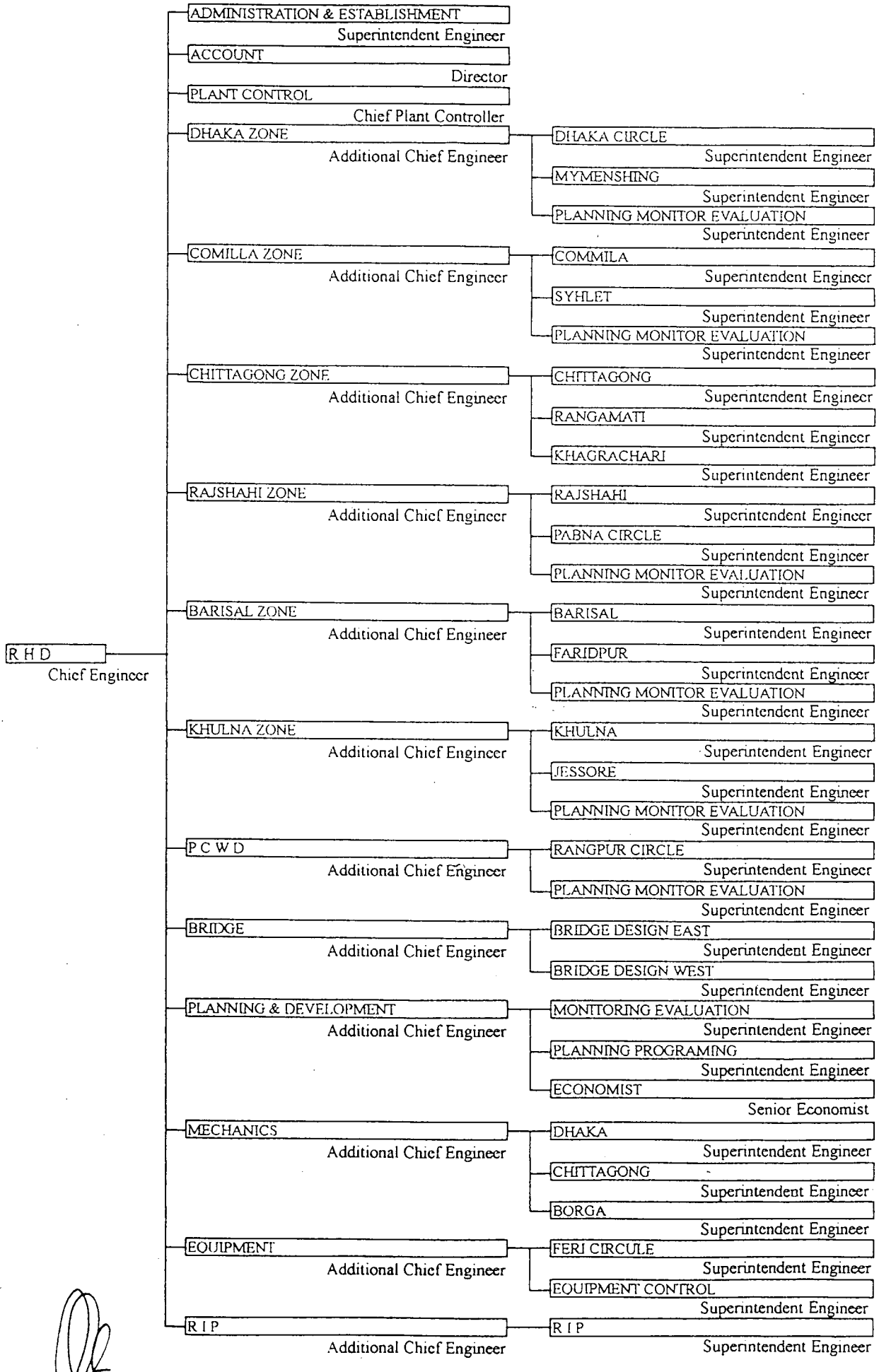
(8) The Government of Bangladesh shall allocate the necessary budget to meet the cost of design and construction works for projected bridges and internal transportation of the materials.





Location of Requested Bridge Sites

ANNEX-2: Organization Chart of RHD



LIST OF REQUESTED BRIDGES (1/4)

		Initial					Revised			
No.	Number	Division	Bridge ID	Road No.	Bridge Length (m)	Remarks	Bridge ID	Road No	Bridge Length (m)	Remarks
1	1	Rangamati	300445	N16	33.54		300445	N16	33.54	No change
2	2	Rangamati	300446	N16	24.39		300446	N16	24.39	No change
3	3	Rangamati	300415	N16	18.29		300415	N16	18.29	No change
4	4	Rangamati	300418	N16	15.24		300418	N16	15.24	No change
5	5	Rangamati	300270	F1814	45.73		300270	F1814	45.73	No change
6	6	Rangamati	300273	F1814	21.34		300273	F1814	21.34	No change
7	7	Rangamati	300447	F1613	30.48		300447	F1613	30.48	No change
8	8	Rangamati	300448	F1613	39.63		300448	F1613	39.63	No change
9	9	Rangamati	300449	F1613	39.63		300449	F1613	39.63	No change
10	1	Brahman B.	200732	N12	30.48	Under Construction	New	F2051	30.48	Replaced
11	2	Brahman B.	200740	N12	18.29		New	F1207	30.00	Replaced
12	3	Brahman B.	200754	N12	30.48	Under Construction	New	F1206	30.48	Replaced
13	1	Cox's Bazar	300359	F1009	15.25		300359	F1009	15.25	No change
14	2	Cox's Bazar	300363	F1009	15.25		300363	F1009	15.25	No change
15	1	Madaripur	700217	N3	15.24	Under Construction				Deleted
16	1	Dohazari	301014	F1018	12.20		301014	F1018	12.20	No change
17	2	Dohazari	301020	F1018	12.20		301020	F1018	12.20	No change
18	3	Dohazari	300944	F1037	24.39		300944	F1037	24.39	No change
19	4	Dohazari	301070	F1038	48.78		301070	F1038	48.78	No change
20	5	Dohazari	300968	F1023	12.20		300968	F1023	12.20	No change
21	1	Jamalpur	100052	F4021	33.54		100052	F4021	33.54	No change
22	1	Munshigonj	100202	F8003	48.00	Under Construction	New	F8009	92.00	Replaced
23	2	Munshigonj	100251	F8121	54.88		100251	F8121	54.88	No change
24	3	Munshigonj	100220	F8001	76.21		100216	F8001	21.34	Replaced
25	4	Munshigonj	100224	F8001	36.58		New	F8122	36.58	Replaced
26	1	Manikgonj	101018	F5064	36.58	Under Construction	101020	F5064	30.48	Replaced
27	2	Manikgonj	101024	F5064	33.54	Under Construction	101021	F5064	12.20	Replaced
28	3	Manikgonj	101026	F5064	39.63		101026	F5064	39.63	No change
29	4	Manikgonj	101031	F5064	60.00	Under Construction	101028	F5064	31.00	Replaced
30	5	Manikgonj	101036	F4014	36.58		101036	F4014	36.58	No change
31	6	Manikgonj	101037	F4014	152.44		101037	F4014	152.44	No change
32	7	Manikgonj	101045	F4014	54.88	Under Construction	101066	F5063	31.70	Replaced

LIST OF REQUESTED BRIDGES (2/4)

		Initial					Revised			
No.	Number	Division	Bridge ID	Road No.	Bridge Length (m)	Remarks	Bridge ID	Road No.	Bridge Length (m)	Remarks
33	8	Manikgonj	101057	F5063	50.00	Under Construction				Deleted
34	9	Manikgonj	101060	F5063	50.00	Under Construction				Deleted
		Narsingdi					101262	F2041	45.30	Additional
		Narsingdi					101266	F2041	91.00	Additional
35	1	Tangail	100667	F4024	20.00		100667	F4024	20.00	No change
36	1	Pirojpur	700795	F7704	13.72	Under Construction	700797	F7704	24.00	Replaced
37	2	Pirojpur	700796	F7704	10.82		700796	F7704	10.82	No change
38	3	Pirojpur	700824	F7709	9.14		700824	F7709	9.14	No change
39	4	Pirojpur	700825	F7709	9.14		700825	F7709	9.14	No change
40	5	Pirojpur	700826	F7709	9.14		700826	F7709	9.14	No change
41	6	Pirojpur	700567	F8705	15.24		700567	F8705	15.24	No change
42	7	Pirojpur	700577	F8707	15.24		700577	F8707	15.24	No change
43	8	Pirojpur	700588	F8711	61.00		700588	F8711	61.00	No change
44	9	Pirojpur	700803	F7706	15.24		700803	F7706	15.24	No change
45	10	Pirojpur	700805	F7706	15.24		700805	F7706	15.24	No change
46	11	Pirojpur	700806	F7706	15.24		700806	F7706	15.24	No change
47	12	Pirojpur	700809	F7706	12.18		700809	F7706	12.18	No change
48	13	Pirojpur	700812	F7706	15.24		700812	F7706	15.24	No change
49	14	Pirojpur	700814	F7707	33.53		700814	F7707	33.53	No change
50	15	Pirojpur	700815	F7707	12.19		700815	F7707	12.19	No change
51	16	Pirojpur	700816	F7707	10.67		700816	F7707	10.67	No change
52	17	Pirojpur	700844	F7711	36.58		700844	F7711	36.58	No change
53	18	Pirojpur	700846	F7711	33.53	Under Construction				Deleted
54	19	Pirojpur	700863	F7712	15.24		700863	F7712	15.24	No change
55	20	Pirojpur	700869	F7714	43.27	Under Construction				Deleted
56	21	Pirojpur	700876	F8712	18.20		700876	F8712	18.20	No change
57	22	Pirojpur	700877	F8712	10.00		700877	F8712	10.00	No change
58	23	Pirojpur	700849	F8715	24.48		700849	F8715	24.48	No change
59	24	Pirojpur	700850	F8715	15.24		700850	F8715	15.24	No change
60	25	Pirojpur	700853	F8715	15.24		700853	F8715	15.24	No change
61	26	Pirojpur	700835	F8718	12.00		700835	F8718	12.00	No change
62	27	Pirojpur	700836	F8718	15.24	Under Construction				Deleted

LIST OF REQUESTED BRIDGES (3/4)

		Initial					Revised			
No.	Number	Division	Bridge ID	Road No.	Bridge Length (m)	Remarks	Bridge ID	Road No.	Bridge Length (m)	Remarks
63	28	Pirojpur	700837	F8718	15.24	Under Construction				Deleted
64	29	Pirojpur	700838	F8718	48.72		700838	F8718	48.72	No change
		Pirojpur					New (Km 20)	F7704	24.38	Additional
		Pirojpur					New (Km 25)	F7704	21.34	Additional
65	1	Barisal	700416	F8034	19.29		700416	F8034	19.29	No change
66	2	Barisal	700446	F8032	36.60		700446	F8032	36.60	No change
67	3	Barisal	700451	F8032	12.20		700451	F8032	12.20	No change
68	4	Barisal	700453	F8032	15.24		700453	F8032	15.24	No change
69	5	Barisal	700474	F8036	43.00		700474	F8036	43.00	No change
70	6	Barisal	700479	F8036	15.24		700479	F8036	15.24	No change
71	7	Barisal	701118	F8018	43.00		701118	F8018	43.00	No change
72	8	Barisal	701123	F8018	18.30		701123	F8018	18.30	No change
73	9	Barisal	701124	F8018	18.30		701124	F8018	18.30	No change
74	10	Barisal	701125	F8018	18.30		701125	F8018	18.30	No change
75	11	Barisal	701126	F8018	18.30		701126	F8018	18.30	No change
76	12	Barisal	701127	F8018	18.30		701127	F8018	18.30	No change
77	13	Barisal	701129	F8018	21.34		701129	F8018	21.34	No change
78	14	Barisal	701146	F8019	18.30		701146	F8019	18.30	No change
79	15	Barisal	701148	F8019	21.34		701148	F8019	21.34	No change
80	16	Barisal	701150	F8019	18.30		701150	F8019	18.30	No change
81	17	Barisal	701151	F8019	24.40		701151	F8019	24.40	No change
82	18	Barisal	701094	F8020	24.39		701094	F8020	24.39	No change
83	19	Barisal	701095	F8020	15.24		701095	F8020	15.24	No change
84	20	Barisal	701096	F8020	18.30		701096	F8020	18.30	No change
85	21	Barisal	701097	F8020	24.39		701097	F8020	24.39	No change
86	22	Barisal	701098	F8020	24.39		701098	F8020	24.39	No change
87	23	Barisal	701103	F8020	15.24		701103	F8020	15.24	No change
88	24	Barisal	701105	F8407	18.30		701105	F8407	18.30	No change
89	25	Barisal	701108	F8407	15.25		701108	F8407	15.25	No change
90	26	Barisal	701109	F8407	24.39		701109	F8407	24.39	No change
		Barisal					New (Km 29)	F8807	36.58	Additional
		Barisal					New (Km 30)	F8807	24.38	Additional

LIST OF REQUESTED BRIDGES (4/4)

		Initial					Revised			
No.	Number	Division	Bridge ID	Road No.	Bridge Length (m)	Remarks	Bridge ID	Road No.	Bridge Length (m)	Remarks
		Barisal					New (Km 31)	F8807	36.58	Additional
91	1	Patuakhali	700309	F8805	60.00		700309	F8805	60.00	No change
92	2	Patuakhali	700945	F8056	30.48		700945	F8056	30.48	No change
93	3	Patuakhali	700924	F8057	30.48		700924	F8057	30.48	No change
94	4	Patuakhali	700934	F8057	39.63		700934	F8057	39.63	No change
95	1	Chandpur	201338	F1410	30.00		201338	F1410	30.00	No change
96	2	Chandpur	201342	F1410	30.00		201342	F1410	30.00	No change
97	1	Laxmipur	200196	R140	9.15		200200	R140	35.00	Replaced
98	2	Laxmipur	200208	R140	42.68		200253	R140	30.00	Replaced
99	3	Laxmipur	200137	F1460	15.25		200220	F1404	35.00	Replaced
100	4	Laxmipur	200261	F1464	15.25		200243	F1405	25.00	Replaced
101	1	Moulavi B.	200975	F2821	70.00		200975	F2821	70.00	No change
102	2	Moulavi B.	200951	F2821	15.00		200948	F2821	24.30	Replaced
103	3	Moulavi B.	200952	F2821	15.00		200952	F2821	15.00	No change
104	4	Moulavi B.	200955	F2821	30.00		200955	F2821	30.00	No change
105	5	Moulavi B.	200913	F2823	60.00	Under Construction	200973	F2821	24.00	Replaced
106	6	Moulavi B.	200877	F2824	20.00		200972	F2821	27.00	Replaced
107	7	Moulavi B.	200883	F2824	24.00		201011	F2003	128.00	Replaced
108	8	Moulavi B.	200869	F2824	50.00		200869	F2824	50.00	No change
109	9	Moulavi B.	200907	F2825	15.00		200907	F2825	15.00	No change
110	10	Moulavi B.	200866	F2826	40.00		201013	F2003	40.00	Replaced
111	1	Sunamgonj	201229	F2804	30.00		201229	F2804	30.00	No change
112	2	Sunamgonj	201230	F2804	12.00		201230	F2804	12.00	No change
113	1	Chittagong	300118	F1617	30.50	Under Construction	300120	F1617	30.00	Replaced
114	1	Dhaka	101215	R812	24.38		101215	R812	24.38	No change
Number of Bridges = 114, Total Length = 3,160.27 m							Number of Bridges = 114, Total Length = 3,275.29 m			

Annex-4
JAPAN'S GRANT AID SCHEME

1. Grant Aid Procedures

1) Japan's Grant Aid Program is executed through the following procedures.

- Application	(Request made by the recipient country)
- Study	(Basic Design Study conducted by JICA)
- Appraisal &Approval	(Appraisal by the Government of Japan and Approval by the Cabinet)
- Determination of Implementation	(The Note exchanged between the Governments of Japan and the recipient country)

2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study) using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

2. Basic Design Study

1) Contents of the study

The aim of the Basic Design Study (hereafter referred to as "the Study") conducted by JICA on a requested project (hereafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows :

a) Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.

b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.

c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.

d) Preparation of a basic design of the Project.

e) Estimation of costs of the Project.
The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of the Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms. The selected firm(s) carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA. The consultant firm(s) used for the Study is(are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid undue any delay in implementation should the selection process be repeated.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reimbursable funds to

procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, ect., are confirmed.

3) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed. However, in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely, consulting constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

6) Undertakings required of the Government of the Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as the following:

(1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction.

(2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.

(3) To secure buildings prior to the procurement in case the installation of the equipment.

(4) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.

(5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.

7) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

8) "Re-export"

The products purchased under the Grant Aid should not be re-exported from the recipient country.

9) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

Major Undertakings to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To relocate water supply lines, electric power lines, telephone lines and others attached to the existing bridge		●
4	To construct gates and fences in and around the site		●
5	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
6	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		●
	1) Marine(Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and customs clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the stock yard of RHD		●
	4) Internal transportation from the stock yard of RHD to the project site		●
7	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
8	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract		●
9	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
10	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities		●
11	To coordinate and solve any issues related to the Project which may be raised from third parties or inhabitants in the Project area		●

2. Second Field Survey

Minutes of Discussions
On the Basic Design Study (Second Site Survey)
On the Project for Improvement of Steel Bridges for Roads in Rural Areas
In the People's Republic of Bangladesh.

In September 2000, the Japan International Cooperation Agency dispatched a study team on the Project for Improvement of Steel Bridges for Roads in Rural Areas (hereinafter referred to as "the Project") to the People's Republic of Bangladesh(hereinafter referred to as "Bangladesh") , and through discussions, field survey, and technical examination of the results in Japan, JICA prepared the Interim Report of the study.

In order to explain and to consult the Government of Bangladesh on the components of the Interim Report, JICA sent to Bangladesh the Basic Design Study (Second Site Survey) Team (hereinafter referred to as "the Team"), which is headed by Mr. Yoshikazu Yamada, Director, 3rd Project Management Division, Grant Aid Management Department, JICA, and is scheduled to stay in the country from November 19 to January 5, 2001.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Dhaka, November 29, 2000

Yoshikazu Yamada
Leader
Basic Design Study Team
Japan International Cooperation Agency

Kamrul Hasan
Deputy Secretary
Economic Relations Division
Ministry of Finance

M. Abdul Malek
Deputy Chief
Roads & Railways Division
Ministry of Communication

29/11/2000

Md. Serajul Islam
Superintending Engineer RHD
Bridge Design Circle-East

ATTACHMENT

1. Components of Interim Report
   The Government of Bangladesh agreed and accepted in principle the components of the Interim Report explained by the Team.

2. Project Sites
   The Project Sites are located in 18 districts as shown in ANNEX-1. However the final sites of the Project will be decided by the Team after further studies in Japan.

3. Items Requested by the Government of Bangladesh
   The following items were finally requested by the Government of Bangladesh.

   1) To provide steel materials of super-structure necessary for constructing bridges listed in ANNEX-2; consisting of Pony Trussed Beam and Steel Deck (only for 1-Lane bridges).

   2) To Provide Erection Tools necessary for constructing bridges with above materials.

   However, the final components of the Project will be decided by the Team after further studies in Japan.

4. Japan's Grant Aid Scheme
   The Bangladesh side understands the Japan's Grant Aid Scheme and necessary measure to be taken by the Government of Bangladesh as explained by the Team described in ANNEX-4 and ANNEX-5 of the Minutes of Discussions signed by both parties on September 12, 2000.

5. Specifications of Steel Bridges
   Both sides agreed the specifications of steel bridges as follows.

   1) Design Criteria:
      -Type of Bridge : Pony Truss Type
      -Design Live Load : AASHTO HS20-44 or equivalent
      -Span : 10m, 15m, 20m, 25m, 30m.
      -Width : 3.35m(1-Lane), 10.0m(2-Lane of National Road), and 9.5m(2-Lane of Regional Road)
      -Finishing : Galvanized coating

   2) Designated Port of Entry:
      -Chittagong International Seaport

   However, the final specifications of the bridges will be decided by the Team after further studies in Japan.

6. Schedule of the Study

1) The consultants will proceed to further studies in Bangladesh until January 5, 2001.

2) JICA will prepare the Draft Basic Design Report in English and dispatch a mission in order to explain the contents in March 2001.

3) In case that the contents of the report is accepted in principle by the Government of Bangladesh, JICA will complete the final report and send it to the Government of Bangladesh by May 2001.

7. Other Relevant Issues

1) The Government of Bangladesh should complete the necessary procedure for approval of Project Concept Paper for the Project until the end of January, 2001.

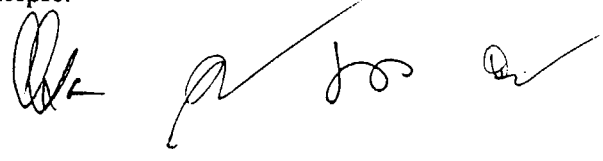
2) The Project Proforma for the Project should be authorized to approve this project. Therefore the Government of Bangladesh shall take necessary procedure for authorization until the end of March, 2001.

3) Both sides reconfirmed that the following items should be implemented by the Bangladesh Side, which are on the Minutes of Discussions signed by both parties on September 12, 2000.

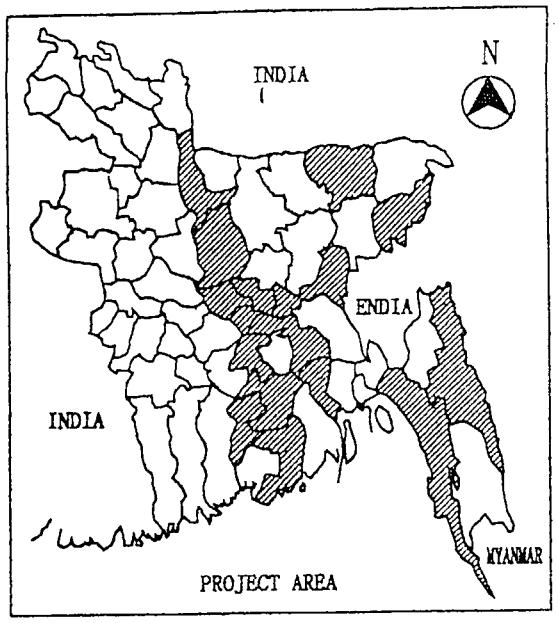
1. Demolition of existing bridges
2. Design and construction of substructures
3. Construction of approach roads
4. Construction of superstructures
   (Completed in 2 years from the date of procurement)
5. Secure the land for stock of the materials
6. Internal transportation of the materials from port to stockyard of RHD in Chittagong, and form stockyard to each site.
7. Secure the lands for achievement of above No.1~4 (until the end of May, 2001)

4) Both sides confirmed that Bangladesh Side is responsible for construction of the deck slab for 2-lane bridges, adding the items of 3) above. Including this work, the Government of Bangladesh should complete the construction of whole bridges in 2 years from the date of the procurement of the materials.

5) Based on the request from the Bangladesh side, the Team explained the contents of the consultant service for (a) sample design of substructure, (b) girder erection planning, (c) training of erection works, for several bridges, as one of the components of the Grant Aid. The Bangladesh side agreed to the plan in principle.



Annex - 1



100052
100667
101036
101037
101020
101021
101026
101028
101215
100216
New

701094
701095
701096
701097
701098
701103
701105
701108
701109
701123
701124
701125
701126
701127
700479
700474
700416
701151
701150
701149
701148
700446
700451
700453

201229
200975
200869
201011
201013
New (km11)
New (km29)
New (km39)
200253
200220
200200
200243
201338
201342

New (km25)
700863
700812
700809
700806
700805
700803
700814
700816
700853
700815
700850
700849
700826
700825
700844
700876
700577

300448
300418
300273
300120
301070
300944
301014
301020
700945
700309
300359

JAMALPUR
TANGAIL
MANIKGONJ
DHAKA
MUNSHIGONJ
SUNAMGONJ
MOULAVIBASAR
BRAHMANBARIA
CHANDPUR
MADARIPUR
BARISAL
LAXMIPUR
JHALAKATI
PIROJPUR
BARGUNA
CHITTAGONG
RANGAMATI
DOHAZARI
COX' SBASAR

Location of Bridge Sites

Annex- 2

LIST OF CONSTRUCTING BRIDGES

No.	Division	Bridge ID	Route No	No.	Division	Bridge ID	Route No
4	RANGAMATI	300418	N16	65	BARISAL	700416	F8034
6		300273	F1814	66		700446	F8032
8		300448	F1613	67		700451	F8032
10	BRAHMAN BARIA	New(km11)	F2031	68		700453	F8032
11		New(km39)	F1207	69		700474	F8036
12		New	F1206	70		700479	F8036
13	COX'S BAZAR	300359	F1009	72		701123	F8018
16	DOHAZARI	301014	F1018	73		701124	F8018
17		301020	F1018	74		701125	F8018
18		300944	F1037	75		701126	F8018
19		301070	F1038	76		701127	F8018
21	JAMALPUR	100052	F4021	78		701149	F8019
24	MUNSHIGONJ	100216	F8001	79		701148	F8019
25		New	F8122	80		701150	F8019
26	MANIKGONJ	101020	F5064	81		701151	F8019
27		101021	F5064	82		701094	F8020
28		101026	F5064	83		701095	F8020
29		101028	F5064	84		701096	F8020
30		101036	F4014	85		701097	F8020
31		101037	F4014	86		701098	F8020
35	TANGAIL	100667	F4024	87		701103	F8020
39	PIROJPUR	700825	F7009	88		701105	F8407
40		700826	F7009	89		701108	F8407
42		700577	F8707	90		701109	F8407
44		700803	F7706	91	BARGUNA	700309	F8805
45		700805	F7706	92	JHALAKATI	700945	F8056
46		700806	F7706	95	CHANDPUR	201338	F1407
47		700809	F7706	96		201342	F1407
48		700812	F7706	97	LAXMIPUR	200200	R140
49		700814	F7707	98		200253	R140
50		700815	F7707	99		200220	F1404
51		700816	F7707	100		200243	F1405
52		700844	F7711	101	MOULAVI BAZAR	200975	F2821
54		700863	F7712	107		201011	F2003
56		700876	F8712	108		200869	F2824
58		700849	F8715	110		201013	F2003
59		700850	F8715	111	SUNAMGONJ	201229	F2804
60		700853	F8715	113	CHITTAGONG	300120	F1617
A-4		New(km25)	F7704	114	DHAKA	101215	R812

3. Explanation of Draft Report

Minutes of Discussions
On the Basic Design Study
On the Project for Improvement of Steel Bridges for Roads in Rural Areas
In the People's Republic of Bangladesh.
(EXPLANATION ON DRAFT REPORT)

In September and November 2000, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the Project for Improvement of Steel Bridges for Roads in Rural Areas (hereinafter referred to as "the Project") to the People's Republic of Bangladesh (hereinafter referred to as "Bangladesh"), and through discussion, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the study.

In order to explain and to consult the Government of Bangladesh on the components of the draft report, JICA sent to Bangladesh the Draft Report Explanation Team (hereinafter referred to as "the Team"), which is headed by Mr. Katsutoshi Komori, 3rd Project Management Division, Grant Aid Management Department, JICA, from March 10th to March 14th, 2001.

As a result of discussions, both parties confirmed the main items described on the attached sheets.

Dhaka, March 13, 2001

Katsutoshi Komori
Leader
Draft Report Explanation Team
Japan International Cooperation Agency

Kamrul Hasan
Deputy Secretary
Economic Relations Division
Ministry of Finance

13/3/001

M. Abdul Malek
Deputy Chief
Roads & Railways Division
Ministry of Communication

13/3/2001

Md. Serajul Islam
Superintending Engineer RHD
Bridge Design Circle-East

ATTACHMENT

1.Components of the Draft Report

The Government of Bangladesh agreed and accepted in principle the components of the draft report explained by the Team.

2.Japan's Grant Aid scheme

The Bangladeshi side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Bangladesh as explained by the Team and described in Annex-4 and Annex-5 of the Minutes of Discussions signed by both parties on September 12, 2000.

3.Schedule of the Study

JICA will complete the final report in accordance with the confirmed item and send it to the Government of Bangladesh by May, 2001.

4. Other Relevant Issues

(1) Number of bridges for the Project is 76 (including 7 bridges of 2-lane); the location of the bridges is shown in Annex-1, and the list of the bridges is shown in Annex-2.

(2) The Government of Bangladesh should complete the necessary procedure for approval of the Project Concept Paper and the Project Proforma for the Project until the end of March, 2001.

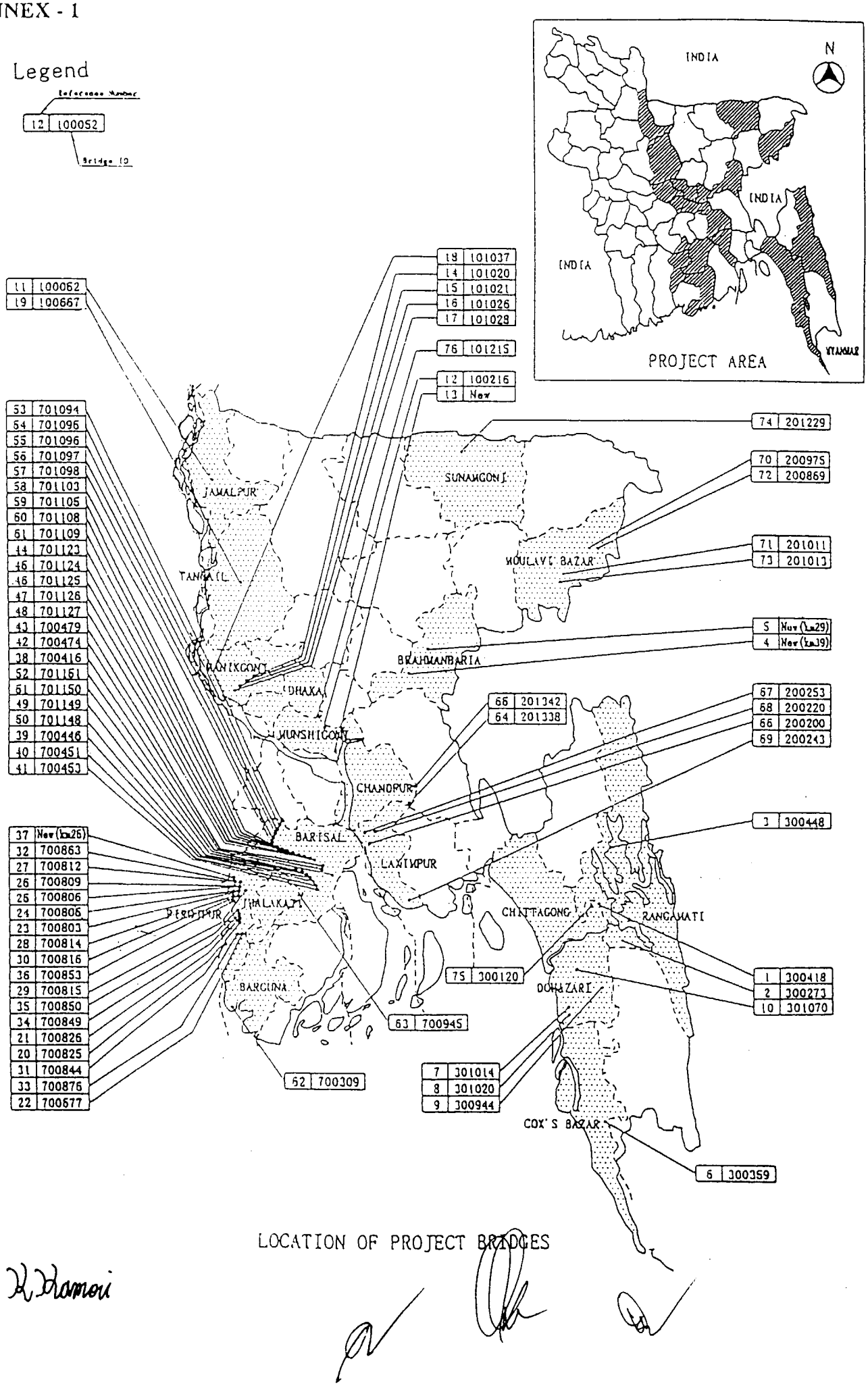
(3) Both sides reconfirmed that the following items should be implemented by the Bangladesh Side, which are confirmed on the Minutes of Discussions signed by both parties on November 29th, 2000.

1. Demolition of existing bridges (if necessary)
2. Design and construction of substructures
3. Construction of approach roads
4. Construction of superstructures, including the deck slab for 2-lane bridges
   (Completed in 2years from the date of procurement)
5. Secure the land for stock of the materials
6. Internal transportation of the materials from port to stockyard of RHD in Chittagong, and form stockyard to each site
7. Secure the lands for achievement of above No.2-4 (Until the end of May, 2001)

(4) Based on the request from the Bangladeshi side, the Team explained the contents of the consultant service for (a) sample design of substructure, (b) girder erection planning, (c) training of erection works, for several bridges, as one of the components of the Grant Aid. The Bangladeshi side agreed to the plan in principle.

R. Komori

ANNEX - 1



LOCATION OF PROJECT BRIDGES

ANNEX - 2

LIST OF PROJECT BRIDGES

No.	Division	Bridge ID	Route No.	No. of Lanes	Bridge Length (m)
1	RANGAMATI	300418	N16	2	15
2		300273	F1814	1	25
3		300448	F1613	1	45
4	BRAHMAN BARIA	New(km39)	F1207	1	30
5		New(km29)	F1206	1	65
6	COX'S BAZAR	300359	F1009	1	15
7	DOHAZARI	301014	F1018	1	15
8		301020	F1018	1	20
9		300944	F1037	1	20
10		301070	F1038	1	30
11	JAMALPUR	100052	F4021	1	30
12	MUNSHIGONJ	100216	F8001	1	20
13		New	F8122	1	40
14	MANIKGONJ	101020	F5064	1	30
15		101021	F5064	1	20
16		101026	F5064	1	40
17		101028	F5064	1	30
18		101037	F4014	1	70
19	TANGAIL	100667	F4024	1	15
20	PIROJPUR	700825	F7009	2	15
21		700826	F7009	2	15
22		700577	F8707	1	15
23		700803	F7706	1	15
24		700805	F7706	1	15
25		700806	F7706	1	10
26		700809	F7706	1	15
27		700812	F7706	1	15
28		700814	F7707	1	30
29		700815	F7707	1	15
30		700816	F7707	1	15
31		700844	F7711	1	30
32		700863	F7712	1	25
33		700876	F8712	1	25
34		700849	F8715	1	15
35		700850	F8715	1	15
36		700853	F8715	1	20
37		New(km25)	F7704	1	10
38	BARISAL	700416	F8034	1	20
39		700446	F8032	1	25
40		700451	F8032	1	15
41		700453	F8032	1	15
42		700474	F8036	1	40
43		700479	F8036	1	20
44		701123	F8018	1	25
45		701124	F8018	1	20
46		701125	F8018	1	20
47		701126	F8018	1	15
48		701127	F8018	1	25
49		701149	F8019	1	15
50		701148	F8019	1	20
51		701150	F8019	1	20
52		701151	F8019	1	20
53		701094	F8020	1	30
54		701095	F8020	1	20
55	BARISAL	701096	F8020	1	20
56		701097	F8020	1	30
57		701098	F8020	1	25
58		701103	F8020	1	20
59		701105	F8407	1	25
60		701108	F8407	1	20
61		701109	F8407	1	20
62	BARGUNA	700309	F8805	1	70
63	JHALAKATI	700945	F8056	1	25
64	CHANDPUR	201338	F1407	1	20
65		201342	F1407	1	25
66	LAXMIPUR	200200	R140	2	30
67		200253	R140	2	25
68		200220	F1404	1	25
69		200243	F1405	1	25
70	MOULAVI BAZAR	200975	F2821	1	60
71		201011	F2003	1	130
72		200869	F2824	2	40
73		201013	F2003	1	20
74	SUNAMGONJ	201229	F2804	1	30
75	CHITTAGONG	300120	F1617	1	25
76	DHAKA	101215	R812	2	25
Total		Total of bridges = 76			
		Total length = 1,990m			

APPENDIX 5

COST ESTIMATION BORNE BY THE GOVERNMENT OF BANGLADESH

ESTIMATED COST BORN BY THE GOVERNMENT OF BANGLADESH

(1) Construction Cost

(Unit : Taka)

Structure		Unite Price	Unit	Phase 1 (47 Brides)		Phase 2 (29 ridges)		Total (76Bridges)	
				Quantity	Amount	Quantity	Amount	Quantity	Amount
Sub-Structure	Single-lane Abutment	1,730,000	Nos.	80	138,400,000	58	100,340,000	138	238,740,000
	Bouble-lane Abutment	2,860,000	Nos.	14	40,040,000	-	-	14	40,040,000
	Single-lane Pier	1,190,000	Nos.	4	4,760,000	12	14,280,000	16	19,040,000
	Bouble-lane Pier	1,790,000	Nos.	1	1,790,000	-	-	1	1,790,000
				(	184,990,000)	(	114,620,000)	(	299,610,000)
	Sub-total				185,000,000		114,000,000		299,000,000
Super-Structure	Erection of Bridges	8,500	Ton	1,158	9,843,000	802	6,817,000	1,960	16,660,000
	Concrete Slab	4,500	m2	1,324	5,958,000	-	-	1,324	5,958,000
				(	15,801,000)	(	6,817,000)	(	22,618,000)
	Sub-total				16,000,000		7,000,000		23,000,000
Others	Approach Road	10,000	m	1,880	18,800,000	1,160	11,600,000	3,040	30,400,000
	River Bank Protecton	1,530	m2	12,960	19,828,800	8,935	13,670,550	21,895	33,499,350
				(	38,628,800)	(	25,270,550)	(	63,899,350)
	Sub-total				39,000,000		25,000,000		64,000,000
Total (Taka)					240,000,000		146,000,000		386,000,000

(2) Custom Duty and Other Levies

(Unit : Taka)

Custom Duty and Other Levies	Phase 1	Phase 2	Tatal
Total (Taka)	162,000,000	104,000,000	266,000,000

(3) Total Cost

(Unit : Taka)

Total Cost	Phase 1	Phase 2	Tatal
Total (Taka)	402,000,000	250,000,000	652,000,000

APPENDIX 6

BASIC DATA OF REQUESTED BRIDGES

BASIC DATA OF REQUESTED BRIDGES (1/12)

No.												
Bridge ID			300445	300446	300415	300418	300270	300273	300447	300448	300449	New (km11)
Division			RANGAMATI	RANGAMATI	RANGAMATI	RANGAMATI	RANGAMATI	RANGAMATI	RANGAMATI	RANGAMATI	RANGAMATI	BRAHMAN B.
Road No.			F1616	F1613	N16	N16	F1814	F1814	F1613	F1613	F1613	F2031
Existing Br. Condition	Existence of Bridge		Existing	Existing	New Bridge Completed	Existing	Existing	Existing	Existing	Existing	Existing	None
	Bridge Type		Bailey	Bailey		RC	Bailey	Bailey	Bailey	Bailey	Bailey	---
	Bridge Length (m)		33.7	24.6		6.2	45.7	28.2	29.88	44.6	39.6	---
	Bridge Width (m)		3.4	3.3		5.5	3.45	3.45	3.5	3.4	3.5	---
	Bridge Condition		Good	Good		Superannuated	Good	Superannuated	Good	Weak/Deformed	Good	Washed Away
	Necessity of Reconstruction		Not Necessary	Not Necessary		Necessary	Not Necessary	Necessary	Not Necessary	Necessary	Not Necessary	Necessary
Road Condition	Road Class		Feeder-A	Feeder-A		National	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A
	Road Width (m)		6.6	6.4		7.0	6.0	5.8	5.9	5.8	5.8	Washed Away
	Pavement Width (m)		3.6	3.4		5.0	3.2	3.2	3.3	3.2	3.2	Washed Away
	Pavement Type		Asphalt	Asphalt		Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Earth	Earth
	Road Condition		Good	Good		Good	Good	Good	Good	Good	Fair	Very Bad
	Necessity of Improvement		Not Necessary	Not Necessary		Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Necessary
	Distance of Detour Route (km)		25	None		40	None	None	105	100	90	85
Vicinity Area Condition	Beneficiary (person)		10,000	6,000		100,000	25,000	30,000	10,000	11,000	11,000	13,000
	Landuse		Agricultural	Agricultural		Residential	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural
	Major Products		Rice/Banana/ Sugar Cane	Rice/Vegetable		Rice/Vegetable	Vegetable/ Banana	Vegetable/ Banana	Vegetable/ Banana	Vegetable	Vegetable	Rice/Jute
	Main Industry		Agriculture	Agriculture		Agriculture/ Commercial	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture
	Public Facilities			School		School/Mosque	Mosque	Mosque		Mosque	School	Market/Mosque
Daily Traffic Volume	Vehicle		1,000	1,000		1,500	250	250	250	500	500	450
	Rickshaw		200	150		500	150	150	150	500	500	750
	Pedestrian (person)		350	500		1,500	1,300	1,300	1,700	1,700	1,700	2,000
	Boat (person)		0	0		0	0	0	0	0	0	0
Engineering Information	Topography		Rolling	Rolling		Flat	Rolling	Rolling	Rolling	Rolling	Rolling	Flat
	Geology		Clay/Sand	Sandy Clay		Clay	Clay/Silt	Sand/Mudstone	Sand	Sand/Mudstone	Clay/Sand	Clay
	River Condition: Depth (m)	LWL	0.2	0.3		0.1	0.4	0.15	0.5	0.8	0.6	0
		HWL	2.8	1.5		2.7	1.4	4.4	5.4	8.5	5.6	4.0
	Width (m)	LWL	24.5	20.4		9.9	24.0	12.2	21.3	39.2	31.0	Washed Away
		HWL	28.3	20.4		13.8	43.2	27.0	28.8	43.8	38.5	Washed Away
	Velocity (m/s)		1.18	0.5		0.3	1.33	0.91	1.25	0.83	1.25	0.1
	Existence of River Bank		None	None		None	None	None	None	None	None	None
	River Channel		Stable	Stable		Stable	Stable	Stable	Stable	Stable	Stable	Stable
	Required Freeboard (m)		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Transportation of Equipment/Materials		Possible	Possible		Possible	Possible	Possible	Possible	Possible	Possible	Possible
	Constructability		OK	OK		OK	OK	OK	OK	OK	OK	OK
Necessity of Land Acquisition			Not Necessary	Not Necessary		Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Necessity of Removal of Obstacles			Not Necessary	Not Necessary		Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Peace & Order Condition			Good	Good		Good	Good	Good	Good	Good	Good	Good
Assess-ment	Engineering Viability		X	X		○	X	○	X	○	X	X
	Socio-economic Viability		○	○		○	○	○	○	○	○	○
	Selection		X	X	X	○	X	○	X	○	X	X
Proposed Bridge	Number of Lanes					2		1		1		Difficulty is envisaged in connecting road construction and determination of bridge dimensions
	Length (m)					15.0		30.0		45.0		
	Height (m)					4.3		6.0		10.1		
Remarks												

BASIC DATA OF REQUESTED BRIDGES (2/12)

No.				4	5	6		7	8	9	10		11
Bridge ID				New (km39)	New (km29)	300359	300363	301014	301020	300944	301070	300968	100052
Division				BRAHMAN B.	BRAHMAN B.	CIX'S BAZAR	CIX'S BAZAR	DOHAZARI	DOHAZARI	DOHAZARI	DOHAZARI	DOHAZARI	JAMALPUR
Road No.				F1207	F1206	F1009	F1009	F1018	F1018	F1037	F1038	F1023	F4021
Existing Br. Condition	Existence of Bridge			Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	New Bridge Completed	Existing
	Bridge Type			Bamboo	Bamboo	H-beam	Bailey	Bailey	Bailey	RC	H-beam		Bailey
	Bridge Length (m)			25.0	25.0	6.35	21.55	12.1	18.4	21.5	35.2		33.5
	Bridge Width (m)			3 pcs. Bamboo	2 pcs. Bamboo	5.0	3.3	3.45	3.4	3.2	2.3		3.4
	Bridge Condition			Weak	Weak	Superannuated	Good	Superannuated	Superannuated	Damaged	Damaged		Weak
	Necessity of Reconstruction			Necessary	Necessary	Necessary	Not Necessary	Necessary	Necessary	Necessary	Necessary		Necessary
Road Condition	Road Class			Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A		Feeder-A
	Road Width (m)			6.0	6.0	7.0	6.5	5.7	5.7	5.4	5.4		6.0
	Pavement Width (m)			3.0	3.5	5.0	3.5	3.7	3.7	3.8	3.8		4.0
	Pavement Type			Earth	Earth	Asphalt	Earth	Asphalt	Asphalt	Brick	Earth		Asphalt
	Road Condition			Bad	Very Bad	Fair	Bad	Fair	Fair	Fair	Fair		Fair
	Necessity of Improvement			Not Necessary	Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary		Not Necessary
	Distance of Detour Route (km)			50	80	30	35	80	80	30	40		None
Vicinity Area Condition	Beneficiary (person)			53,000	26,000	25,000	25,000	300,000	300,000	200,000	200,000		30,000
	Landuse			Agricultural/ Residential	Agricultural	Agricultural	Agricultural	Agricultural/ Residential	Agricultural/ Residential	Agricultural/ Residential	Agricultural/ Residential		Residential/ Agriculture
	Major Products			Rice/Jute	Rice/Jute	Rice/Vegetable	Rice/Vegetable	Rice/Potato/ Shrimp	Rice/Potato/ Shrimp	Rice/Potato/ Banana	Rice/Vegetable/ Shrimp		Rice/Banana/ Jute
	Main Industry			Agriculture	Agriculture	Agriculture	Agriculture	Agriculture/ Commercial	Agriculture/ Commercial	Agriculture	Agriculture/ Commercial		Agriculture/ Commercial
	Public Facilities			Town Office/ Market	Town Office/ School/Mosque	Town Office		Mosque	Mosque	Market/Town Office	Elementary School/Mosque		Town Office/ Market/School/ Mosque
Daily Traffic Volume	Vehicle			150	450	500	500	350	350	500	500		630
	Rickshaw			1,800	750	800	800	500	500	320	400		430
	Pedestrian (person)			2,000	2,000	1,000	1,000	3,000	3,000	10,000	3,000		4,500
	Boat (person)			0	0	0	0	0	0	0	0		0
Engineering Information	Topography			Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat		Flat
	Geology			Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay		Clay
	River Condition	Depth (m)	LWL	0.5	0	1.1	0.2	0.3	0.3	0.5	2.4		1.4
			HWL	2.6	4.0	2.0	1.7	1.5	1.4	3.2	3.3		5.0
		Width (m)	LWL	24.6	23.7	6.0	9.4	10.0	10.8	18.0	16.0		28.0
			HWL	24.6	23.7	13.8	14.0	12.0	16.4	20.0	28.0		28.0
		Velocity (m/s)		0.1	0.2	0.1	0.3	0	0.40	0.63	0.91		0.5
		Existence of River Bank		None	None	None	None	None	None	None	None		None
		River Channel		Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable		Stable
		Required Freeboard (m)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0
	Transportation of Equipment/Materials			Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible		Possible
	Constructability			OK	OK	OK	OK	OK	OK	OK	OK		OK
Necessity of Land Acquisition				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary		Not Necessary
Necessity of Removal of Obstacles				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary		Not Necessary
Peace & Order Condition				Good	Good	Good	Good	Good	Good	Good	Good		Good
Assess-ment	Engineering Viability			○	○	○	X	○	○	○	○		○
	Socio-economic Viability			○	○	○	○	○	○	○	○		○
	Selection			○	○	○	X	○	○	○	○	X	○
Proposed Bridge	Number of Lanes			1	1	1		1	1	1	1		1
	Length (m)			30.0	35.0	15.0		15.0	20.0	25.0	35.0		30.0
	Height (m)			4.2	5.6	3.6		3.1	3.0	4.8	4.9		6.6
Remarks				Road under Improvement	Road under Improvement								

BASIC DATA OF REQUESTED BRIDGES (3/12)

No.				12	13	14	15	16	17		18
Bridge ID			New	100251	100216	New	101020	101021	101026	101028	101036	101037
Division			MUNSHIGONJ	MUNSHIGONJ	MUNSHIGONJ	MUNSHIGONJ	MANIKGONJ	MANIKGONJ	MANIKGONJ	MANIKGONJ	MANIKGONJ	MANIKGONJ
Road No.			F8009	F8121	F8001	F8122	F5064	F5064	F5064	F5064	F4014	F4014
Existing Br. Condition	Existence of Bridge		None	Existing	Existing	Existing	Existing	Existing	Existing	Existing	None	None
	Bridge Type		---	Bailey	RC	Bamboo	RC	RC	RC	RC	---	---
	Bridge Length (m)		---	24.5	20.1	36.6	30.3	12.4	38.0	31.0	---	---
	Bridge Width (m)		---	3.4	3.5	1.6	3.85	3.0	3.5	3.4	---	---
	Bridge Condition		---	Good	Superannuated	Weak	Damaged	Superannuated	Damaged	Damaged	Washed Away	---
	Necessity of Reconstruction		Necessary	Not Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary
Road Condition	Road Class		Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A
	Road Width (m)		6.5	6.1	6.1	6.5	5.7	4.1	6.3	6.0	6.0	4.1
	Pavement Width (m)		4.5	3.6	3.7	4.5	3.0	3.0	3.6	3.7	3.3	3.6
	Pavement Type		Asphalt	Asphalt	Asphalt	Earth	Gravel	Gravel	Asphalt	Asphalt	Asphalt	Gravel
	Road Condition		Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
	Necessity of Improvement		Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
	Distance of Detour Route (km)		None	None	None	None	None	None	None	None	125	125
Vicinity Area Condition	Beneficiary (person)		25,000	25,000	30,000	20,000	15,000	15,000	18,400	18,400	18,000	21,300
	Landuse		Agricultural	Agricultural	Agricultural	Agricultural	Agricultural/ Residential	Agricultural/ Residential	Agricultural	Agricultural	Agricultural/ Residential	Agricultural/ Residential
	Major Products		Rice/Jute	Rice/Banana	Rice/Vegetable	Rice/Vegetable	Rice/Vegetable	Rice/Jute	Rice	Rice/Fish	Rice/Jute/ Potato	Rice/Sugar Cane
	Main Industry		Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture/ Fishery	Agriculture	Agriculture
	Public Facilities		Port/Market/School/ Mosque/Town Office	Mosque/School	School/Market	Port/Market	Mosque	Mosque/School	School	Mosque/School	Market/School/ Mosque	Town Office/ Market/School
Daily Traffic Volume	Vehicle		0	500	650	700	550	550	340	340	450	450
	Rickshaw		0	1,000	2,000	2,000	2,500	2,500	2,300	2,300	3,300	3,300
	Pedestrian (person)		0	1,000	3,000	3,000	3,000	3,000	2,500	2,500	1,000	500
	Boat (person)		0	0	0	0	0	0	0	0	0	1,000
Engineering Information	Topography		Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat
	Geology		Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay
	River Condition: Depth (m)	LWL	2.0	1.5	0.5	0.3	1.5	1.2	1.5	1.4	0.9	7.5
		HWL	13.5	6.0	2.7	3.0	4.0	3.5	4.5	4.5	3.0	11.0
	River Condition: Width (m)	LWL	85.0	22.3	16.0	34.2	28.0	10.4	36.0	28.0	Washed Away	70.0
		HWL	90.0	22.3	18.0	38.0	28.0	10.4	36.0	28.0	Washed Away	Washed Away
	River Condition: Velocity (m/s)		2.0	0.1	0.5	0.5	0.5	0.4	0.2	0.3	0.1	0.9
	River Condition: Existence of River Bank		None	None	None	None	None	None	None	None	None	None
	River Condition: River Channel		Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
	River Condition: Required Freeboard (m)		2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0
	Transportation of Equipment/Materials		Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible
	Constructability		Difficult	OK	OK	OK	OK	OK	OK	OK	OK	OK
Necessity of Land Acquisition			Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Necessary
Necessity of Removal of Obstacles			Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Necessary(house)	Not Necessary	Not Necessary	Not Necessary	Necessary(house)
Peace & Order Condition			Good	Good	Good	Good	Fair	Fair	Fair	Fair	Fair	Good
Assess-ment	Engineering Viability		X	X	○	○	○	○	○	○	X	○
	Socio-economic Viability		○	○	○	○	○	○	○	○	○	○
	Selection		X	X	○	○	○	○	○	○	X	○
Proposed Bridge	Number of Lanes				1	1	1	1	1	1		1
	Length (m)				20.0	40.0	30.0	15.0	40.0	30.0		70.0
	Height (m)				4.3	4.6	5.6	5.1	6.1	6.1		14.6
Remarks											Located outside of rerouting road	Road Improvement Planned

BASIC DATA OF REQUESTED BRIDGES (4/12)

No.				19				20	21		22	
Bridge ID			101066	100667	700797	700796	700824	700825	700826	700567	700577	700588
Division			MANIKGONJ	TANGAIL	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR
Road No.			F5063	F4024	F7704	F7704	F7709	F7709	F7709	F8705	F8707	F8711
Existing Br. Condition	Existence of Bridge		Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
	Bridge Type		RC	RC	Pony Truss	Culvert	RC	RC	RC	Bailey	H-beam	Pony Truss
	Bridge Length (m)		32.1	12.35	18.3	6.9	14.1	14.1	14.1	15.3	15.2	76.0
	Bridge Width (m)		3.45	4.25	3.15	6.65	4.3	3.67	4.33	3.4	3.2	3.35
	Bridge Condition		Damaged	Weak	Good	Good	Good	Superannuated	Superannuated	Good	Superannuated	Good
	Necessity of Reconstruction		Not Necessary*	Necessary	Not Necessary	Not Necessary	Not Necessary	Necessary	Necessary	Not Necessary	Necessary	Not Necessary
Road Condition	Road Class		Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A
	Road Width (m)		5.9	4.7	6.7	6.2	8.6	9.6	7.8	6.7	5.0	4.2
	Pavement Width (m)		3.4	3.7	4.0	4.2	5.6	5.6	5.6	3.7	3.0	3.6
	Pavement Type		Asphalt	Brick	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt
	Road Condition		Bad	Fair	Good	Fair	Good	Fair	Fair	Fair	Fair	Fair
	Necessity of Improvement		Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
	Distance of Detour Route (km)		30	None	120	130	70	70	70	20	40	None
Vicinity Area Condition	Beneficiary (person)		27,400	41,000	25,000	30,000	35,000	35,000	35,000	20,000	25,000	30,000
	Landuse		Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural/ Residential	Agricultural
	Major Products		Rice/Vegetable	Rice/Vegetable/ Potato	Rice/Banana/ Potato	Rice/Vegetable/ Potato	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Jute/ Potato	Rice/Vegetable/ Potato	Rice/Vegetable/ Potato	Rice/Vegetable/ Potato
	Main Industry		Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture
	Public Facilities		School	Town Office/ Market/School	Market/School	Town Office/ Market/School	Town Office/Mosque	Town Office/School	Mosque/Port/ School	Health Center	School	
Daily Traffic Volume	Vehicle		1,740	1,540	600	600	370	370	370	300	290	70
	Rickshaw		2,420	3,400	4,000	4,000	2,200	2,200	2,200	2,300	2,250	1,300
	Pedestrian (person)		1,000	5,000	5,000	5,000	3,000	3,000	3,000	3,000	4,000	800
	Boat (person)		0	0	0	0	0	0	0	0	0	0
Engineering Information	Topography		Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat
	Geology		Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay
	River Condition: Depth (m)	LWL	0	1.5	0.8	1.1	0	0	0	0.5	0.6	2.8
		HWL	2.0	6.4	3.6	4.1	3.2	3.2	3.6	1.5	2.1	5.3
	River Condition: Width (m)	LWL	30.0	12.1	15.8	6.0	10.6	13.5	8.2	4.7	7.0	48.2
		HWL	30.0	12.1	15.8	6.0	11.5	13.5	11.5	14.0	13.0	71.0
	River Condition: Velocity (m/s)		0.1	0.1	0.3	0.1	0.4	0.3	0.3	0.1	0.4	0.3
	River Condition: Existence of River Bank		None	None	None	None	None	None	None	None	None	None
	River Condition: River Channel		Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
	River Condition: Required Freeboard (m)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Transportation of Equipment/Materials		Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible
	Constructability		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Necessity of Land Acquisition			Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Necessity of Removal of Obstacles			Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Peace & Order Condition			Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Assess-ment	Engineering Viability		X	○	X	X	X	○	○	X	○	X
	Socio-economic Viability		○	○	○	○	○	○	○	○	○	○
	Selection		X	○	X	X	X	○	○	X	○	X
Proposed Bridge	Number of Lanes			1				1	1		1	
	Length (m)			15.0				15.0	15.0		15.0	
	Height (m)			8.0				4.8	5.2		3.7	
Remarks			* Usable with reinforcement									

BASIC DATA OF REQUESTED BRIDGES (5/12)

No.				23	24	25	26	27	28	29	30	31	32
Bridge ID				700803	700805	700806	700809	700812	700814	700815	700816	700844	700863
Division				PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR
Road No.				F7706	F7706	F7706	F7706	F7706	F7707	F7707	F7707	F7711	F7712
Existing Br. Condition	Existence of Bridge			Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
	Bridge Type			H-beam	H-beam	H-beam	H-beam	H-beam	H-beam	H-beam	H-beam	H-beam	H-beam
	Bridge Length (m)			13.2	14.2	9.3	13.0	12.6	34.1	12.3	11.0	30.8	21.9
	Bridge Width (m)			1.65	1.6	1.7	1.85	2.75	2.3	1.8	1.8	2.45	2.8
	Bridge Condition			Damaged	Superannuated	Superannuated	Superannuated	Superannuated	Superannuated	Superannuated	Weak	Badly Damaged	Superannuated
	Necessity of Reconstruction			Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary
Road Condition	Road Class			Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A
	Road Width (m)			5.9	6.1	4.8	5.3	5.7	4.5	6.0	5.3	7.2	6.3
	Pavement Width (m)			3.9	3.1	3.2	3.0	3.4	3.5	3.0	3.5	3.8	3.0
	Pavement Type			Brick	Brick	Brick	Brick	Asphalt	Brick	Brick	Earth	Brick	Brick
	Road Condition			Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
	Necessity of Improvement			Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
	Distance of Detour Route (km)			65	65	65	60	55	45	45	40	110	30
Vicinity Area Condition	Beneficiary (person)			20,000	20,000	20,000	30,000	30,000	35,000	30,000	30,000	30,000	20,000
	Landuse			Agricultural	Residential/ Agricultural	Agricultural	Agricultural	Residential/ Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Residential/ Agricultural
	Major Products			Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Banana/ Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Potato/ Banana	Rice/Vegetable/ Banana
	Main Industry			Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture
	Public Facilities			Mosque	School	Mosque	High School/Mosque/ Factory/Market	School	Town Office/School/ Mosque/Factory	High School		School/Factory/ Mosque	Town Office/ School/Hospital
Daily Traffic Volume	Vehicle			0	0	0	0	0	0	0	0	0	220
	Rickshaw			470	470	470	500	500	350	350	350	1,100	1,200
	Pedestrian (person)			1,200	1,200	1,200	1,300	1,300	1,000	1,000	1,000	2,000	2,000
	Boat (person)			0	0	0	0	0	0	0	0	0	0
Engineering Information	Topography			Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat
	Geology			Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay/Silt	Clay	Clay
	River Condition	Depth (m)	LWL	1.0	0.4	0	0.3	0.2	1.3	1.0	0.4	1.5	0.6
			HWL	3.3	3.5	2.5	2.5	2.9	3.8	2.5	2.9	4.8	2.9
		Width (m)	LWL	10.4	9.4	7.4	8.6	6.4	29.0	11.2	10.0	28.0	12.1
			HWL	12.0	13.0	8.0	12.0	11.8	29.0	12.0	10.0	28.0	20.5
		Velocity (m/s)		0.3	0.3	0.3	0.4	0.3	0.8	0.5	0.1	0.3	0.6
		Existence of River Bank		None	None	None	None	None	None	None	None	None	None
		River Channel		Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
		Required Freeboard (m)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Transportation of Equipment/Materials			Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible
	Constructability			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Necessity of Land Acquisition				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Necessity of Removal of Obstacles				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Peace & Order Condition				Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Assess-ment	Engineering Viability			○	○	○	○	○	○	○	○	○	○
	Socio-economic Viability			○	○	○	○	○	○	○	○	○	○
	Selection			○	○	○	○	○	○	○	○	○	○
Proposed Bridge	Number of Lanes			1	1	1	1	1	1	1	1	1	1
	Length (m)			15.0	15.0	10.0	15.0	15.0	30.0	15.0	10.0	30.0	25.0
	Height (m)			4.9	5.1	4.1	4.1	4.5	5.4	4.1	4.5	6.4	5.5
Remarks													

BASIC DATA OF REQUESTED BRIDGES (6/12)

No.				33		34	35	36			38	39	40
Bridge ID				700876	700877	700849	700850	700853	700835	700838	700416	700446	700451
Division				PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	PIROJPUR	BARISAL	BARISAL	BARISAL
Road No.				F8712	F8712	F8715	F8715	F8715	F8718	F8718	F8034	F8032	F8032
Existing Br. Condition	Existence of Bridge			Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
	Bridge Type			Bailey	Culvert	H-beam	H-beam	RC	H-beam	H-beam	Bailey	H-beam	H-beam
	Bridge Length (m)			21.0	18.6	13.1	16.0	14.1	16.5	33.5	18.7	23.0	12.2
	Bridge Width (m)			3.4	7.0	1.8	2.0	1.7	2.6	3.2	3.8	2.5	2.5
	Bridge Condition			Weak	Good	Superannuated	Superannuated	Superannuated	Superannuated	Superannuated	Superannuated	Badly Damaged	Damaged
	Necessity of Reconstruction			Necessary	Not Necessary	Necessary	Necessary	Necessary	Not Necessary*	Not Necessary*	Necessary	Necessary	Necessary
Road Condition	Road Class			Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A
	Road Width (m)			5.6	7.0	5.8	5.7	6.0	6.2	6.0	5.6	5.8	5.8
	Pavement Width (m)			3.9	3.9	3.0	3.7	4.6	3.6	4.0	3.8	3.8	3.8
	Pavement Type			Asphalt	Asphalt	Earth	Brick	Asphalt	Brick	Brick	Asphalt	Earth	Asphalt
	Road Condition			Fair	Fair	Fair	Fair	Fair	Very Bad	Very Bad	Good	Fair	Good
	Necessity of Improvement			Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Necessary	Necessary	Not Necessary	Not Necessary	Not Necessary
	Distance of Detour Route (km)			None	None	40	40	45	60	50	45	35	30
Vicinity Area Condition	Beneficiary (person)			20,000	20,000	30,000	30,000	30,000	30,000	30,000	40,000	27,000	25,000
	Landuse			Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Residential/ Agricultural	Residential/ Agricultural	Residential/ Agricultural	Agricultural/ Residential	Agricultural/ Residential
	Major Products			Rice/Banana/ Potato	Rice/Potato/ Vegetable	Rice/Potato/ Vegetable	Rice/Vegetable/ Banana	Rice/Vegetable/ Potato	Rice/Potato/ Banana	Rice/Vegetable/ Jute	Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Jute
	Main Industry								Agriculture	Agriculture/Industry	Agriculture	Agriculture	Agriculture/Fishery
	Public Facilities			Market/School	Market	Mosque	Market/School	School	School	Market/School	Mosque	Junior High School/Mosque	
Daily Traffic Volume	Vehicle			220	220	0	0	0	0	10	100	0	0
	Rickshaw			1,200	1,200	360	360	360	760	760	1,200	0	0
	Pedestrian (person)			2,000	2,000	1,300	1,300	1,300	3,000	3,000	4,000	4,000	3,000
	Boat (person)			0	0	0	0	0	0	0	0	0	0
Engineering Information	Topography			Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat
	Geology			Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay/Silt	Clay	Clay
	River Condition	Depth (m)	LWL	0	0	0.2	0.6	1.3	1.0	0.9	0.2	0.5	0.4
			HWL	2.1	2.5	2.0	3.1	3.3	2.5	3.9	2.7	2.5	2.5
		Width (m)	LWL	12.6	6.2	10.4	13.0	11.5	15.3	32.0	14.1	21.0	11.5
			HWL	19.5	6.2	12.0	13.0	13.5	15.3	32.0	17.0	22.0	11.5
		Velocity (m/s)		0.3	0.3	0.1	0.6	0.7	0.7	0.2	0.5	0.5	0.3
		Existence of River Bank		None	None	None	None	None	None	None	None	None	None
		River Channel		Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
		Required Freeboard (m)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Transportation of Equipment/Materials			Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible
	Constructability			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Necessity of Land Acquisition				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Necessity of Removal of Obstacles				Not Necessary	Not Necessary	Not Necessary	Necessary(Booth)	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Peace & Order Condition				Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Assess-ment	Engineering Viability			○	X	○	○	○	X	X	○	○	○
	Socio-economic Viability			○	○	○	○	○	○	○	○	○	○
	Selection			○	X	○	○	○	X	X	○	○	○
Proposed Bridge	Number of Lanes			1		1	1	1			1	1	1
	Length (m)			30.0		15.0	15.0	15.0			20.0	25.0	15.0
	Height (m)			3.7		3.6	4.7	4.9			4.3	4.1	4.1
Remarks									Road under Improvement	Road under Improvement			

BASIC DATA OF REQUESTED BRIDGES (7/12)

No.				41	42	43		44	45	46	47	48	
Bridge ID				700453	700474	700479	701118	701123	701124	701125	701126	701127	701129
Division				BARISAL	BARISAL	BARISAL	BARISAL	BARISAL	BARISAL	BARISAL	BARISAL	BARISAL	BARISAL
Road No.				F8032	F8036	F8036	F8018	F8018	F8018	F8018	F8018	F8018	F8018
Existing Br. Condition	Existence of Bridge			Existing	Existing	Existing	New Bridge Completed	Existing	Existing	Existing	Existing	Existing	New Bridge under Construction
	Bridge Type			Bailey	H-beam	H-beam		H-beam	H-beam	H-beam	H-beam	H-beam	
	Bridge Length (m)			15.6	41.5	15.4		17.0	18.2	18.0	15.5	18.25	
	Bridge Width (m)			3.2	1.65	1.65		2.5	1.8	1.8	1.85	2.0	
	Bridge Condition			Weak	Damaged	Damaged		Damaged	Damaged	Superannuated	Damaged	Damaged	
	Necessity of Reconstruction			Necessary	Necessary	Necessary		Necessary	Necessary	Necessary	Necessary	Necessary	
Road Condition	Road Class			Feeder-A	Feeder-A	Feeder-A		Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	
	Road Width (m)			5.7	6.0	6.0		5.2	5.5	5.5	4.4	5.0	
	Pavement Width (m)			4.7	3.6	3.8		3.8	3.0	3.6	3.8	3.8	
	Pavement Type			Brick	Brick	Brick		Brick	Brick	Brick	Brick	Brick	
	Road Condition			Fair	Fair	Fair		Bad	Very Bad	Very Bad	Very Bad	Bad	
	Necessity of Improvement			Not Necessary	Not Necessary	Not Necessary		Not Necessary	Necessary	Necessary	Necessary	Not Necessary	
	Distance of Detour Route (km)			40	40	40		50	40	40	30	30	
Vicinity Area Condition	Beneficiary (person)			25,000	30,000	30,000		35,000	35,000	35,000	30,000	30,000	
	Landuse			Agricultural/ Residential	Agricultural/ Residential	Agricultural/ Residential		Residential/ Agricultural	Residential/ Agricultural	Agricultural	Residential/ Agricultural	Residential/ Agricultural	
	Major Products			Rice/Vegetable/ Jute	Rice/Vegetable/ Banana	Rice/Vegetable/ Potato		Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	
	Main Industry			Agriculture	Agriculture	Agriculture		Agriculture	Agriculture	Agriculture/Industry	Agriculture	Agriculture	
	Public Facilities			Mosque/Pottery Factory	High School/Junior High School/Mosque	Mosque			Market/Mosque/ School	Market/Mosque/ School	Market/Mosque	Junior High School	
Daily Traffic Volume	Vehicle			100	0	0		0	0	0	0	0	
	Rickshaw			200	200	200		100	0	0	0	0	
	Pedestrian (person)			6,000	1,000	1,000		3,000	4,000	4,000	3,500	4,000	
	Boat (person)			0	0	0		0	0	0	0	0	
Engineering Information	Topography			Flat	Flat	Flat		Flat	Flat	Flat	Flat	Flat	
	Geology			Clay	Clay	Clay		Clay/Silt	Clay/Silt	Clay/Silt	Clay	Clay	
	River Condition	Depth (m)	LWL	0.2	0.3	1.0		1.0	0	0	1.1	0.9	
			HWL	3.0	3.5	3.5		4.0	1.8	1.8	3.1	3.4	
		Width (m)	LWL	13.3	38.0	10.8		14.2	13.0	16.5	11.8	15.0	
			HWL	13.3	38.0	11.8		14.2	13.0	16.5	15.0	16.5	
		Velocity (m/s)		0.2	0.1	0.1		0.2	0.1	0.1	0.1	0.1	
		Existence of River Bank		None	None	None		None	None	None	None	None	
		River Channel		Stable	Stable	Stable		Stable	Stable	Stable	Stable	Stable	
		Required Freeboard (m)		1.0	1.0	1.0		2.0	1.0	1.0	1.0	1.0	
	Transportation of Equipment/Materials			Possible	Possible	Possible		Possible	Possible	Possible	Possible	Possible	
	Constructability			OK	OK	OK		OK	OK	OK	OK	OK	
Necessity of Land Acquisition				Not Necessary	Not Necessary	Not Necessary		Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	
Necessity of Removal of Obstacles				Not Necessary	Not Necessary	Not Necessary		Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	
Peace & Order Condition				Good	Good	Good		Good	Good	Good	Good	Good	
Assess-ment	Engineering Viability			○	○	○		○	○	○	○	○	
	Socio-economic Viability			○	○	○		○	○	○	○	○	
	Selection			○	○	○	X	○	○	○	○	○	X
Proposed Bridge	Number of Lanes			1	1	1		1	1	1	1	1	
	Length (m)			15.0	40.0	15.0		15.0	15.0	30.0	25.0	25.0	
	Height (m)			4.6	5.1	5.1		6.6	3.4	3.4	4.7	5.0	
Remarks							Road Under Improvement	Road Under Improvement	Road Under Improvement	Road Under Improvement	Road Under Improvement	Road Under Improvement	Road Under Improvement

BASIC DATA OF REQUESTED BRIDGES (8/12)

No.				49	50	51	52	53	54	55	56	57	58
Bridge ID				701149	701148	701150	701151	701094	701095	701096	101097	701098	701103
Division				BRISAL	BRISAL	BRISAL	BRISAL	BRISAL	BRISAL	BRISAL	BRISAL	BRISAL	BRISAL
Road No.				F8019	F8019	F8019	F8019	F8020	F8020	F8020	F8020	F8020	F8020
Existing Br. Condition	Existence of Bridge			Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
	Bridge Type			H-beam	H-beam	H-beam	H-beam	Bamboo	H-beam	H-beam	H-beam	H-beam	H-beam
	Bridge Length (m)			16.5	21.0	17.0	23.1	16.2	15.1	20.0	10.0	20.9	15.0
	Bridge Width (m)			2.25	1.7	2.4	2.3	2 pcs. Bamboo	2.4	1.95	2.5	1.9	2.5
	Bridge Condition			Damaged	Damaged	Superannuated	Damaged	Weak	Damaged	Damaged	Superannuated	Badly Damaged	Superannuated
	Necessity of Reconstruction			Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary	Necessary
Road Condition	Road Class			Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A
	Road Width (m)			4.0	4.2	4.2	4.5	4.6	5.4	5.6	5.0	4.3	4.0
	Pavement Width (m)			3.5	3.2	3.2	3.0	3.4	3.1	4.6	4.0	3.0	3.0
	Pavement Type			Asphalt	Earth	Earth	Earth	Brick	Brick	Earth	Brick	Brick	Brick
	Road Condition			Bad	Bad	Bad	Bad	Bad	Bad	Bad	Bad	Bad	Bad
	Necessity of Improvement			Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
	Distance of Detour Route (km)			35	40	35	35	40	40	35	30	30	40
Vicinity Area Condition	Beneficiary (person)			25,000	25,000	20,000	20,000	20,000	25,000	25,000	25,000	25,000	25,000
	Landuse			Residential/ Agricultural	Residential/ Agricultural	Agricultural	Residential/ Agricultural	Residential/ Agricultural	Agricultural	Residential/ Agricultural	Residential/ Agricultural	Residential/ Agricultural	Residential/ Agricultural
	Major Products			Rice/Vegetable/ Jute	Rice/Vegetable/ Potato	Rice/Vegetable	Rice/Jute/Potato	Rice/Jute/Potato	Rice/Jute/Potato	Rice/Jute/Potato	Rice/Jute/Potato	Rice/Jute/Potato	Rice/Jute/Potato
	Main Industry			Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture
	Public Facilities			Health Center/ School	Mosque	Elementary School	Market		Mosque	Market/School/ Mosque	Market/College		Mosque
Daily Traffic Volume	Vehicle			0	0	0	0	0	0	0	0	0	0
	Rickshaw			450	400	480	410	500	500	500	110	110	190
	Pedestrian (person)			4,000	3,500	4,500	4,000	6,000	6,000	6,000	6,000	6,000	5,000
	Boat (person)			0	0	0	0	0	0	0	0	0	0
Engineering Information	Topography			Flat	Flat/Swampy	Flat	Flat/Swampy	Flat	Flat	Flat	Flat	Flat	Flat
	Geology			Clay	Clay/Silt	Clay	Clay	Clay	Clay	Clay	Clay/Silt	Clay	Clay
	River Condition	Depth (m)	LWL	0.6	1.0	0.9	0.9	0	1.0	0	1.7	1.6	1.6
			HWL	7.7	4.5	7.4	7.5	3.5	4.5	5.5	4.2	4.1	4.6
		Width (m)	LWL	15.1	20.0	16.0	22.0	15.5	14.0	18.5	9.0	20.0	14.0
			HWL	15.1	20.0	16.0	22.0	15.5	14.0	19.0	9.0	20.0	14.0
		Velocity (m/s)		0.1	0.1	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.4
		Existence of River Bank		None	None	None	None	None	None	None	None	None	None
		River Channel		Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
		Required Freeboard (m)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Transportation of Equipment/Materials			Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible
	Constructability			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Necessity of Land Acquisition				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Necessity of Removal of Obstacles				Not Necessary	Not Necessary	Not Necessary	Necessary(Booth)	Not Necessary	Not Necessary	Not Necessary	Necessary(Booth)	Not Necessary	Not Necessary
Peace & Order Condition				Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Assess-ment	Engineering Viability			○	○	○	○	○	○	○	○	○	○
	Socio-economic Viability			○	○	○	○	○	○	○	○	○	○
	Selection			○	○	○	○	○	○	○	○	○	○
Proposed Bridge	Number of Lanes			1	1	1	1	1	1	1	1	1	1
	Length (m)			20.0	25.0	25.0	30.0	35.0	20.0	25.0	45.0	25.0	20.0
	Height (m)			9.3	6.1	9.0	9.1	5.1	6.1	7.1	5.8	5.7	6.2
Remarks													

BASIC DATA OF REQUESTED BRIDGES (9/12)

No.				59	60	61	62	63			64	65	66
Bridge ID				701105	701108	701109	700309	700945	700924	700934	201338	201342	200200
Division				BRISAL	BRISAL	BRISAL	BARGUNA	JHALAKATI	JHALAKATI	JHALAKATI	CHANDPUR	CHANDPUR	LAXMIPUR
Road No.				F8407	F8407	F8407	F8805	F8056	F8057	F8057	F1407	F1407	R140
Existing Br. Condition	Existence of Bridge			Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
	Bridge Type			H-beam	H-beam	H-beam	H-beam	H-beam	H-beam	H-beam	Bailey	Bailey	RC
	Bridge Length (m)			17.4	13.9	13.7	62.7	22.9	27.5	34.8	21.7	24.6	21.8
	Bridge Width (m)			3.25	1.6	1.6	2.4	2.65	3.2	3.5	3.7	3.85	3.8
	Bridge Condition			Superannuated	Superannuated	Superannuated	Superannuated	Superannuated	Superannuated	Superannuated	Superannuated	Superannuated	Superannuated
	Necessity of Reconstruction			Necessary	Necessary	Necessary	Necessary	Necessary	Not Necessary*	Not Necessary*	Necessary	Necessary	Necessary
Road Condition	Road Class			Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Regional
	Road Width (m)			5.3	5.6	5.6	6.8	6.4	6.4	4.7	5.8	5.8	7.0
	Pavement Width (m)			3.3	3.6	3.6	4.0	3.6	3.9	3.7	3.8	3.7	4.0
	Pavement Type			Asphalt	Asphalt	Asphalt	Asphalt	Brick	Brick	Brick	Brick	Asphalt	Asphalt
	Road Condition			Good	Good	Good	Fair	Bad	Bad	Bad	Fair	Good	Good
	Necessity of Improvement			Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
	Distance of Detour Route (km)			40	30	40	None	30	25	25	70	60	40
Vicinity Area Condition	Beneficiary (person)			22,000	25,000	23,000	35,000	25,000	28,000	30,000	45,000	45,000	100,000
	Landuse			Agricultural/ Residential	Agricultural/ Residential	Agricultural/ Residential	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural/ Residential
	Major Products			Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Fish	Rice/Vegetable	Rice/Vegetable	Rice/Vegetable/ Potato	Vegetable/Jute	Rice/Vegetable/ Jute	Rice/Vegetable/ Jute
	Main Industry			Agriculture	Agriculture	Agriculture	Agriculture/ Fishery	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture/ Commercial
	Public Facilities			Junior High School/ Mosque/Town Office	Junior High School/Mosque	Elementary School/ Junior High School	Town Office/ Market/Port/School	Market/Factory	Mosque	School/Bank/ Town Office		School	Mosque
Daily Traffic Volume	Vehicle			100	100	0	200	100	0	0	150	110	1,300
	Rickshaw			300	200	200	2,000	700	700	700	250	350	900
	Pedestrian (person)			5,000	6,000	6,000	8,000	2,500	1,000	1,000	1,000	1,000	3,000
	Boat (person)			0	0	0	0	0	0	0	0	0	0
Engineering Information	Topography			Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat
	Geology			Clay	Clay	Clay	Clay	Clay	Clay	Clay/Silt	Clay	Clay	Clay
	River Condition	Depth (m)	LWL	1.0	0.5	1.5	4.3	1.1	1.8	0.8	2.7	2.7	2.0
			HWL	4.5	3.5	3.5	7.8	3.1	2.8	3.3	3.8	3.8	4.3
		Width (m)	LWL	14.5	13.1	12.5	49.0	17.5	22.8	25.3	19.0	23.1	21.0
			HWL	14.5	13.1	12.5	59.0	21.0	24.0	30.0	19.0	23.1	21.0
		Velocity (m/s)		0.1	0.1	0.1	0.7	0.4	0.2	0.1	0.1	0.5	0
		Existence of River Bank		None	None	None	None	None	None	None	None	None	None
		River Channel		Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
		Required Freeboard (m)		1.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.5
	Transportation of Equipment/Materials			Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible
	Constructability			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Necessity of Land Acquisition				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Necessity of Removal of Obstacles				Not Necessary	Not Necessary	Not Necessary	Necessary(House)	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Peace & Order Condition				Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Assess-ment	Engineering Viability			○	○	○	○	○	X	X	○	○	○
	Socio-economic Viability			○	○	○	○	○	○	○	○	○	○
	Selection			○	○	○	○	○	X	X	○	○	○
Proposed Bridge	Number of Lanes			1	1	1	1	1			1	1	2
	Length (m)			15.0	15.0	15.0	65.0	25.0			20.0	25.0	30.0
	Height (m)			6.1	5.1	5.1	10.4	4.7					
Remarks								Road Improvement Planned	Road Improvement Planned	Road Improvement Planned			

BASIC DATA OF REQUESTED BRIDGES (10/12)

No.				67	68	69	70						71
Bridge ID				200253	200220	200243	200975	200948	200952	200955	200973	200972	201011
Division				LAXMIPUR	LAXMIPUR	LAXMIPUR	MOULAVI B.	MOULAVI B.	MOULAVI B.	MOULAVI B.	MOULAVI B.	MOULAVI B.	MOULAVI B.
Road No.				R140	F1404	F1405	F2821	F2821	F2821	F2821	F2821	F2821	F2003
Existing Br. Condition	Existence of Bridge			Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
	Bridge Type			H-Beam/RC	RC	Bailey	Pony Truss	RC	RC	RC	Bailey	Bailey	Pony Truss
	Bridge Length (m)			21.6	25.8	22.3	60.5	24.4	11.9	24.4	24.4	27.5	135.9
	Bridge Width (m)			3.75	2.2	3.4	3.35	3.7	3.65	4.0	3.3	3.45	3.4
	Bridge Condition			Superannuated	Superannuated	Superannuated/ Damaged	Superannuated	Fair	Good	Fair	Fair	Damaged	Weak
	Necessity of Reconstruction			Necessary	Necessary	Necessary	Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Necessary
Road Condition	Road Class			Regional	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A
	Road Width (m)			7.0	5.0	5.0	6.0	6.1	6.1	6.1	5.4	6.2	5.6
	Pavement Width (m)			4.5	3.0	4.0	3.6	3.8	3.7	3.9	3.7	3.9	3.8
	Pavement Type			Asphalt	Brick	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt
	Road Condition			Good	Fair	Fair	Bad	Fair	Fair	Fair	Good	Fair	Good
	Necessity of Improvement			Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
	Distance of Detour Route (km)			50	60	40	120	120	120	120	50	50	40
Vicinity Area Condition	Beneficiary (person)			100,000	25,000	30,000	40,000	40,000	35,000	50,000	26,000	40,000	22,000
	Landuse			Agricultural/ Residential	Agricultural	Agricultural	Residential/ Agricultural	Agricultural	Agricultural	Agricultural	Residential/ Agricultural	Residential/ Agricultural	Residential/ Agricultural
	Major Products			Rice/Vegetable/ Banana	Rice/Vegetable	Rice/Vegetable/ Banana	Rice/Tea/ Timber	Rice/Tea/ Timber	Rice	Rice/Tea/ Timber	Rice/Tea/ Timber	Rice/Tea/ Timber	Rice/Tea/ Timber
	Main Industry			Agriculture/ Commercial	Agriculture	Agriculture	Agriculture/ Forestry	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture/ Forestry	Agriculture/ Forestry
	Public Facilities			Mosque/ Fishfarm	Mosque	Mosque	Market/Mosque/ Sawmill/Health Center	Market		Market		School	Market/Mosque
Daily Traffic Volume	Vehicle			1,300	100	250	870	870	870	870	870	870	1,700
	Rickshaw			900	500	450	1,200	1,200	1,200	1,200	1,200	1,200	1,500
	Pedestrian (person)			3,000	3,000	2,500	3,000	3,000	2,500	3,000	3,000	2,500	4,000
	Boat (person)			0	0	0	0	0	0	0	0	0	0
Engineering Information	Topography			Flat	Flat	Flat	Flat	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling
	Geology			Clay/Silt	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay
	River Condition	Depth (m)	LWL	1.6	2.0	1.2	2.3	0.5	0	0.5	0	2.0	0
			HWL	2.6	4.8	3.2	4.8	4.5	3.8	4.0	2.7	3.8	4.5
		Width (m)	LWL	20.5	23.3	11.3	46.5	13.8	10.0	10.0	17.2	16.5	92
			HWL	20.5	25.0	20.7	57.0	23.0	10.0	22.0	19.0	25.0	120
		Velocity (m/s)		0.1	0.1	1.7	0.7	0.2	0.2	0.2	0.3	0.2	1.0
		Existence of River Bank		None	None	None	None	None	None	None	None	None	None
		River Channel		Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
		Required Freeboard (m)		1.0	1.0	1.5	2.0	2.0	1.0	1.0	1.0	1.0	2.0
	Transportation of Equipment/Materials			Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible
	Constructability			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Necessity of Land Acquisition				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Necessity of Removal of Obstacles				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
Peace & Order Condition				Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Assess-ment	Engineering Viability			○	○	○	○	X	X	X	X	X	○
	Socio-economic Viability			○	○	○	○	○	○	○	○	○	○
	Selection			○	○	○	○	X	X	X	X	X	○
Proposed Bridge	Number of Lanes			2	1	1	1					1	1
	Length (m)			25.0	30.0	25.0	60.0						130.0
	Height (m)				6.4		7.4						7.1
Remarks													

BASIC DATA OF REQUESTED BRIDGES (11/12)

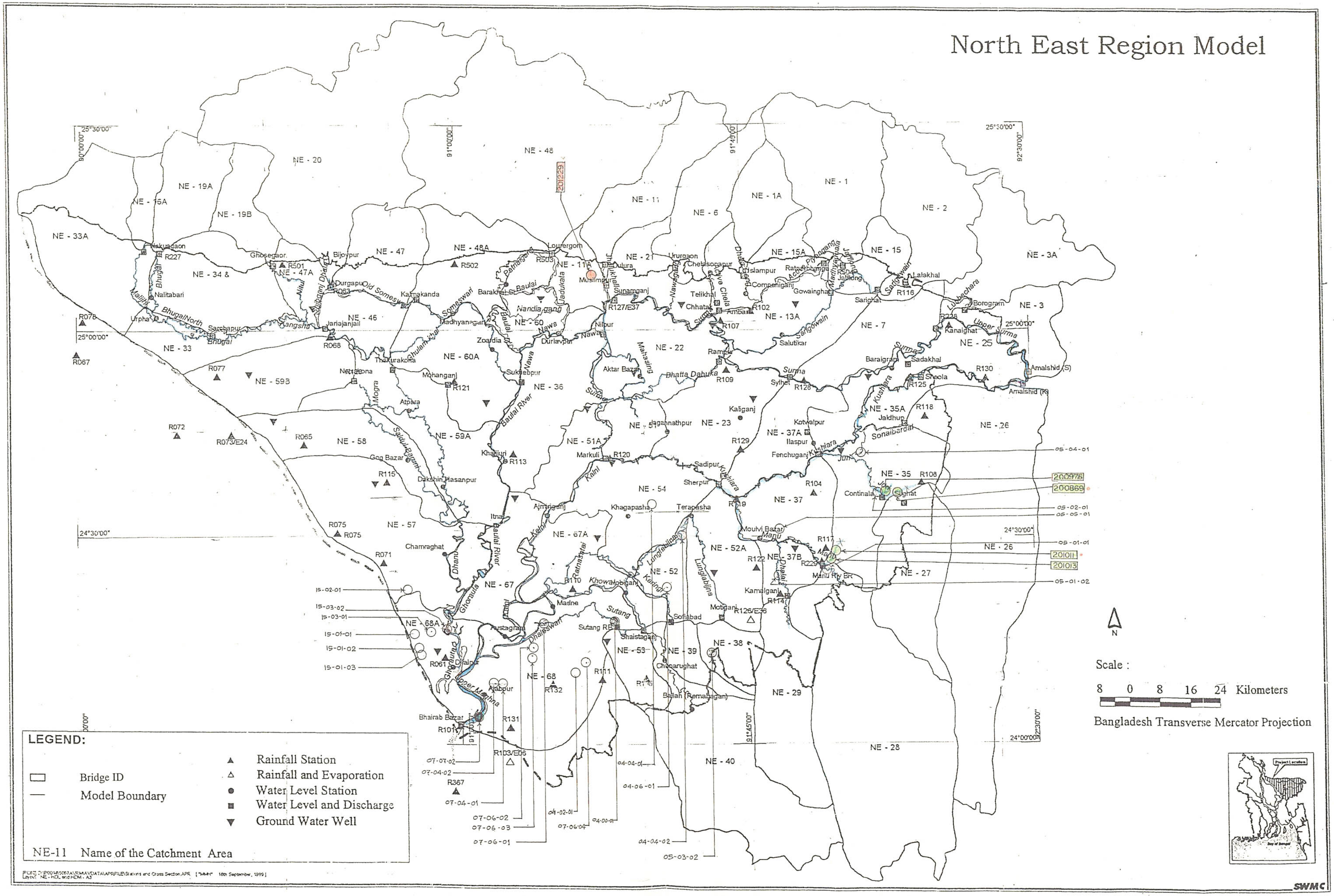
No.				72		73	74		75	76			
Bridge ID				200869	200907	201013	201229	201230	300120	101215	101262	101266	New (km20)
Division				MOULAVI B.	MOULAVI B.	MOULAVI B.	SUNAMGONJ	SUNAMGONJ	CHITTAGONG	DHAKA	NARSINGDI	NARSINGDI	PIROJPUR
Road No.				F2824	F2825	F2003	F2804	F2804	F1617	R812	F2041	F2041	F7704
Existing Br. Condition	Existence of Bridge			Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
	Bridge Type			H-beam	RC	H-beam	Bamboo	Bailey	RC/H-Beam	Pony Truss	RC	RC	Bailey
	Bridge Length (m)			64.7	11.8	19.6	50.0	18.2	22.0	25.0	45.5	90.6	24.5
	Bridge Width (m)			3.4	3.7	3.1	1 pc. Bamboo	3.45	3.2	3.8	3.6	3.7	3.44
	Bridge Condition			Weak	Fair	Superannuated/ Damaged	Weak	Good	Weak	Weak	Good	Good	Good
	Necessity of Reconstruction			Necessary	Not Necessary	Necessary	Necessary	Not Necessary	Necessary	Necessary	Not Necessary	Not Necessary	Not Necessary
Road Condition	Road Class			Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Feeder-A	Regional	Feeder-A	Feeder-A	Regional
	Road Width (m)			6.6	5.2	5.3	5.1	5.1	5.5	9.0	5.6	7.0	6.9
	Pavement Width (m)			6.0	4.0	3.3	3.5	3.6	3.5	5.0	4.0	3.0	3.9
	Pavement Type			Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Gravel	Gravel	Asphalt
	Road Condition			Bad	Good	Good	Fair	Fair	Fair	Fair	Fair	Fair	Good
	Necessity of Improvement			Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary
	Distance of Detour Route (km)			None	None	40	None	None	None	75	None	None	50
Vicinity Area Condition	Beneficiary (person)			30,000	30,000	20,000	70,000	70,000	40,000	500,000	20,000	20,000	16,000
	Landuse			Residential/ Agricultural	Agricultural	Agricultural/ Forest	Residential/ Agricultural	Agricultural	Agricultural	Residential	Residential/ Agricultural	Agricultural	Agricultural
	Major Products			Rice/Tea/ Timber	Rice/Tea/ Timber	Rice/Tea/ Timber	Rice/Vegetable	Rice/Fish	Rice/Vegetable/ Bamboo	Textile/Potato	Vegetable	Vegetable	Rice/Vegetable/ Potato
	Main Industry			Agriculture/ Forestry	Agriculture/ Forestry	Agriculture/ Forestry	Agriculture/ Forestry	Agriculture/ Forestry	Agriculture/ Forestry	Agriculture/ Commercial	Agriculture/ Fishery	Agriculture	Agriculture
	Public Facilities			Market/School		School/Market	School/Mosque	Town Office/Port/ School/Market	Mosque	Factory/Market/ School	School/Mosque/ Silo	Port/Market/ Sawmill	Town Office/ School/Market
Daily Traffic Volume	Vehicle			300	250	1,700	0	0	300	3,100	440	440	600
	Rickshaw			1,200	4,100	1,500	1,190	1,190	400	1,500	3,000	3,000	2,000
	Pedestrian (person)			2,500	1,000	4,000	3,300	3,300	1,400	5,000	2,500	2,500	3,000
	Boat (person)			0	0	0	0	0	0	0	0	0	0
Engineering Information	Topography			Flat	Rolling	Flat	Rolling	Rolling	Flat	Flat	Flat	Flat	Flat
	Geology			Clay	Clay	Clay	Clay	Clay	Clay	Clay/Silt	Clay/Silt	Clay	Clay
	River Condition	Depth (m)	LWL	0	0.3	0.3	0	0	1.7	4.0	1.1	3.1	1.0
			HWL	4.4	3.3	3.0	2.5	3.5	3.9	6.0	3.1	5.1	3.0
		Width (m)	LWL	45.0	11.0	12.8	50.0	14.8	16.9	22.0	44.0	88.0	18.8
			HWL	60.0	11.0	17.0	55.0	17.0	21.0	22.0	44.0	88.0	22.0
		Velocity (m/s)		0.8	0.2	0.3	0.1	0.1	0.6	0.2	0.1	0.1	0.2
		Existence of River Bank		None	None	None	None	None	None	None	None	None	None
		River Channel		Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable
		Required Freeboard (m)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.0
	Transportation of Equipment/Materials			Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible
	Constructability			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Necessity of Land Acquisition				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Necessary	Not Necessary	Not Necessary	Not Necessary
Necessity of Removal of Obstacles				Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Not Necessary	Necessary(House)	Not Necessary	Not Necessary	Not Necessary
Peace & Order Condition				Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Assess-ment	Engineering Viability			○	X	○	○	X	○	○	X	X	X
	Socio-economic Viability			○	○	○	○	○	○	○	○	○	○
	Selection			○	X	○	○	X	○	○	X	X	X
Proposed Bridge	Number of Lanes			1		1	1		1	2			
	Length (m)			65.0		20.0	60.0		30.0	25.0			
	Height (m)			6.0		4.6	4.1		5.5	7.6			
Remarks													

BASIC DATA OF REQUESTED BRIDGES (12/12)

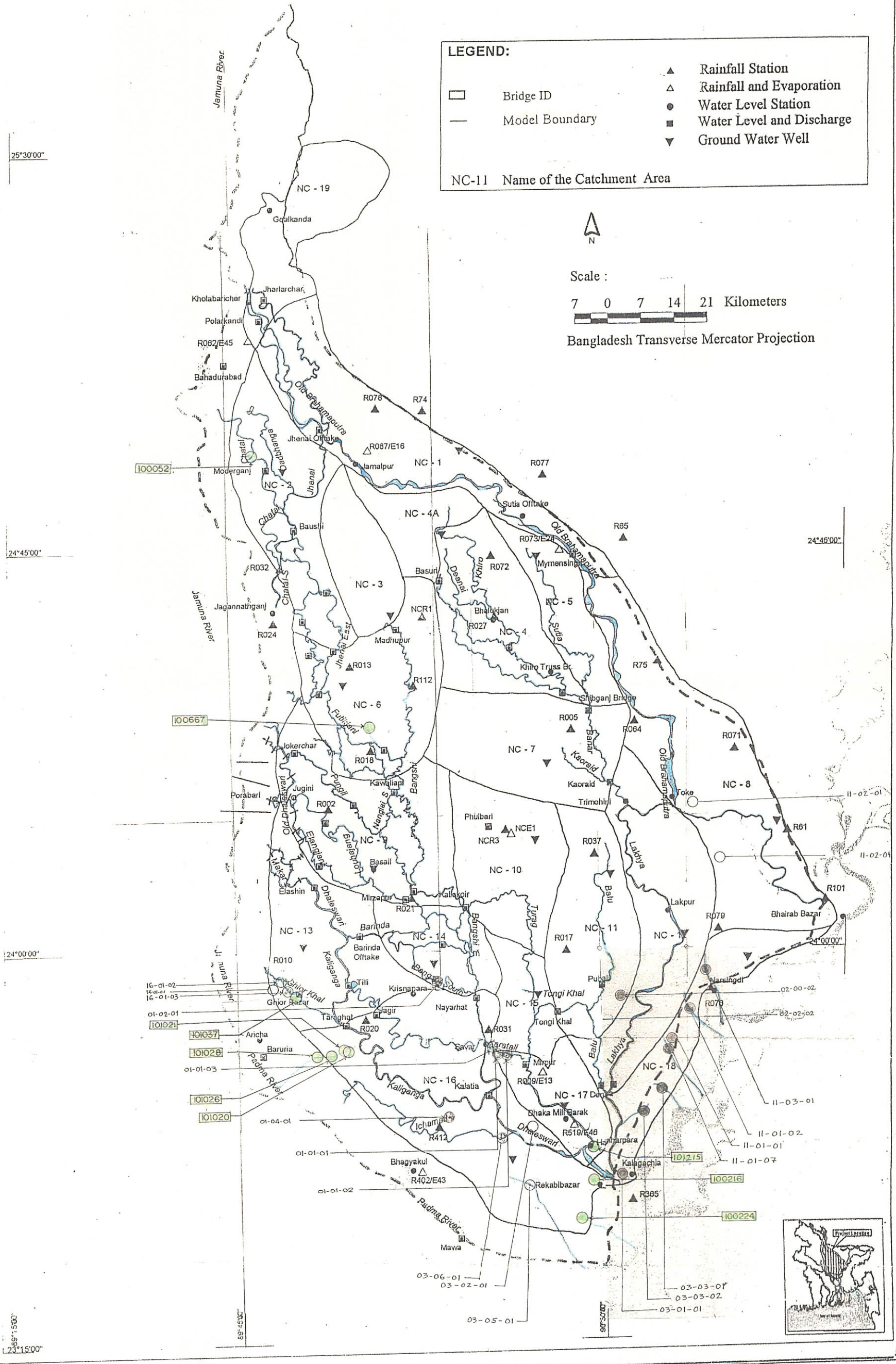
No.			37									
Bridge ID			New (km25)	700284	700291	700293						
Division			PIROJPUR	BARGUNA	BARGUNA	BARGUNA						
Road No.			F7704	F8807	F8807	F8807						
Existing Br. Condition	Existence of Bridge		Existing	Existing	Existing	Existing						
	Bridge Type		Bailey	Pony Truss	Pony Truss	Steel Truss						
	Bridge Length (m)		9.15	36.6	27.0	24.2						
	Bridge Width (m)		3.3	3.42	3.35	3.4						
	Bridge Condition		Superannuated	Good	Good	Good						
	Necessity of Reconstruction		Necessary	Not Necessary	Not Necessary	Not Necessary						
Road Condition	Road Class		Feeder-A	Feeder-A	Feeder-A	Feeder-A						
	Road Width (m)		6.5	5.5	6.5	6.5						
	Pavement Width (m)		4.0	4.5	3.8	4.0						
	Pavement Type		Asphalt	Asphalt	Asphalt	Asphalt						
	Road Condition		Good	Good	Good	Fair						
	Necessity of Improvement		Not Necessary	Not Necessary	Not Necessary	Not Necessary						
	Distance of Detour Route (km)		110	110	120	125						
Vicinity Area Condition	Beneficiary (person)		16,000	25,000	30,000	25,000						
	Landuse		Agricultural	Residential/ Agricultural	Residential/ Agricultural	Residential/ Agricultural						
	Major Products		Rice/Vegetable/ Potato	Rice/Vegetable/ Banana	Rice/Vegetable/ Banana	Rice/Banana/ Fish						
	Main Industry		Agriculture	Agriculture	Agriculture	Agriculture						
	Public Facilities		School/Mosque		Market/School/ Mosque							
Daily Traffic Volume	Vehicle		600	200	200	200						
	Rickshaw		2,000	1,800	1,800	1,800						
	Pedestrian (person)		3,000	7,500	8,000	7,000						
	Boat (person)		0	0	0	0						
Engineering Information	Topography		Flat	Flat	Flat	Flat						
	Geology		Clay	Clay	Clay	Clay						
	River Condition	Depth (m) LWL	0.1	1.5	1.9	0						
		Depth (m) HWL	2.2	3.2	3.0	3.7						
		Width (m) LWL	5.5	24.0	25.0	15.8						
		Width (m) HWL	8.0	31.0	25.0	22.0						
		Velocity (m/s)	0.3	0.3	0.1	0.2						
		Existence of River Bank	None	None	None	None						
		River Channel	Stable	Stable	Stable	Stable						
		Required Freeboard (m)	1.0	1.0	1.0	2.0						
	Transportation of Equipment/Materials		Possible	Possible	Possible	Possible						
	Constructability		OK	OK	OK	OK						
Necessity of Land Acquisition			Not Necessary	Not Necessary	Not Necessary	Not Necessary						
Necessity of Removal of Obstacles			Not Necessary	Not Necessary	Not Necessary	Not Necessary						
Peace & Order Condition			Good	Good	Good	Good						
Assess-ment	Engineering Viability		○	X	X	X						
	Socio-economic Viability		○	○	○	○						
	Selection		○	X	X	X						
Proposed Bridge	Number of Lanes		1									
	Length (m)		10.0									
	Height (m)		3.8									
Remarks												

APPENDIX 7

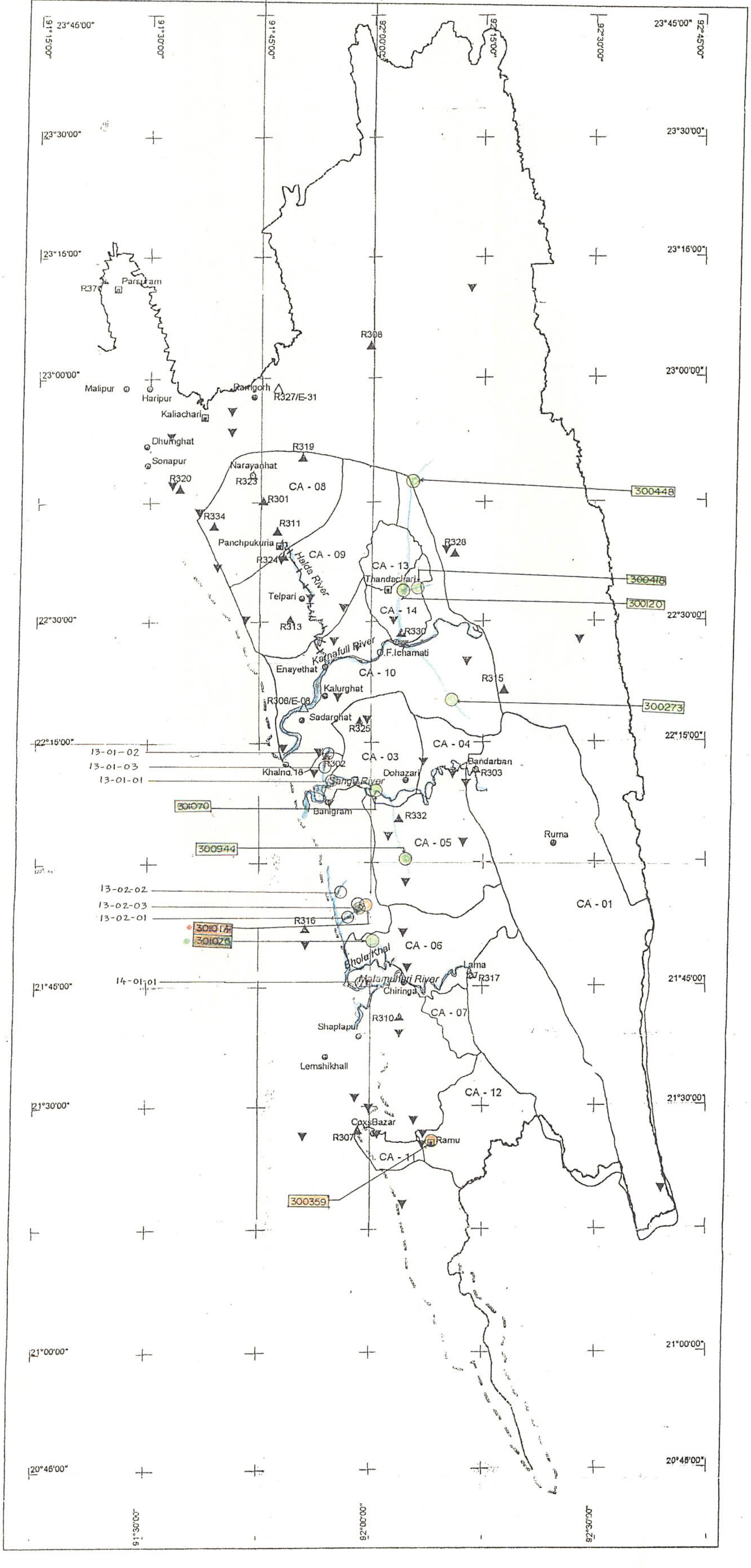
HYDROLOGICAL REGIONS AND CATCHMENT BASINS


North East Region Model
LEGEND:
Rainfall Station
Bridge ID
Rainfall and Evaporation
Model Boundary
Water Level Station
Water Level and Discharge
Ground Water Well
NE-11 Name of the Catchment Area
Scale :
8 0 8 16 24 Kilometers
Bangladesh Transverse Mercator Projection
SWMC

North Central Region Model



A 7 – 2



Chittagong Area Model

LEGEND:

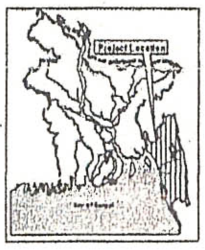
▭	Bridge ID
—	Model Boundary
CA-11	Name of the Catchment Area
▲	Rainfall Station
△	Rainfall and Evaporation
●	Water Level Station
■	Water Level and Discharge
▼	Ground Water Well

N

Scale :

9 0 9 18 27 Kilometers

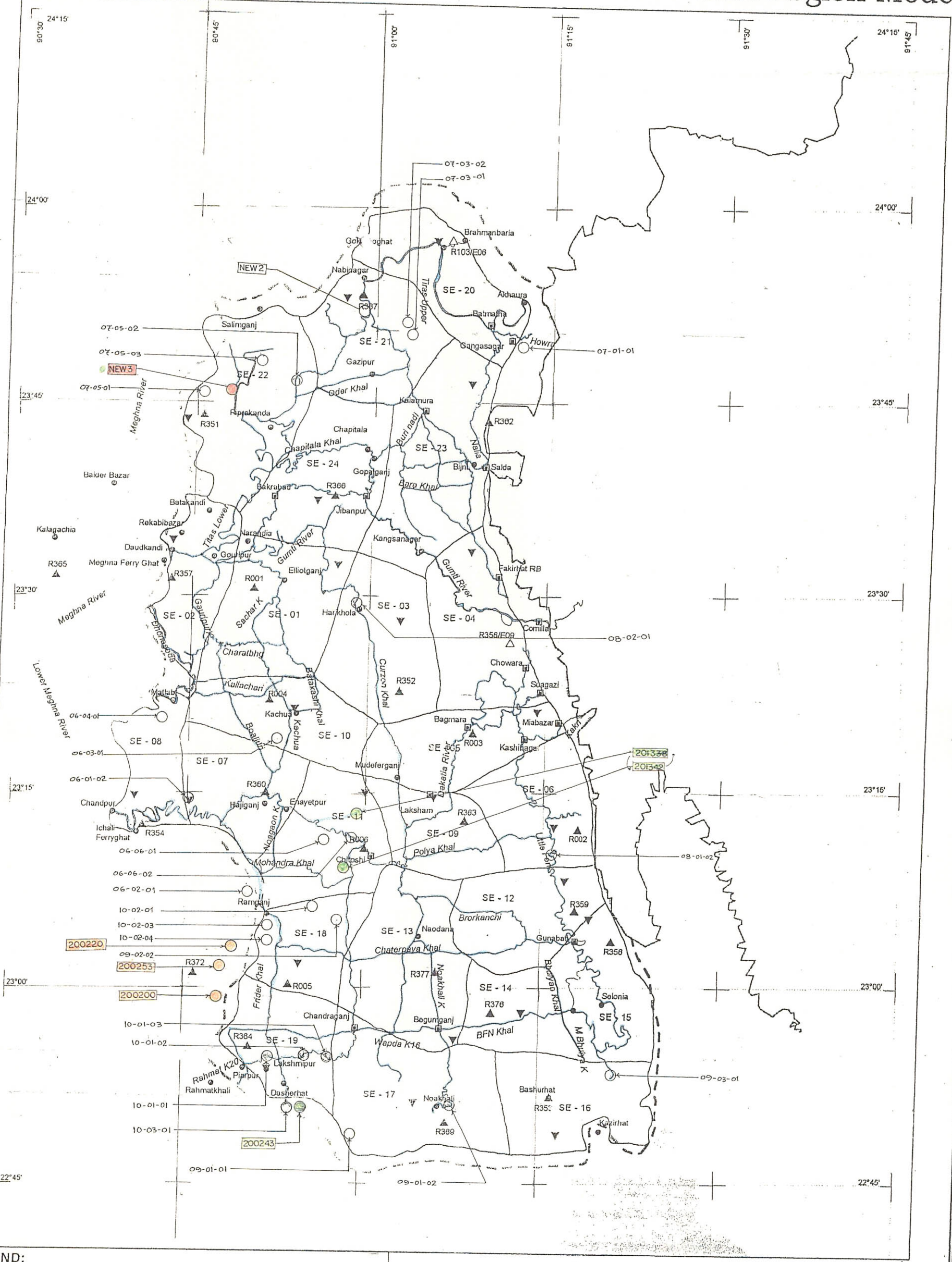
Bangladesh Transverse Mercator Projection



[PO82] D:\980014\5061AVP\MAVDATA\APRFILE\Stations and Cross Section.APR ["MMH" 16th September, 1999]
Layout : CAM - HCL and HOM - A3

SWMC

South East Region Model



LEGEND:

- Bridge ID
- Model Boundary
- Rainfall Station
- Rainfall and Evaporation
- Water Level Station
- Water Level and Discharge
- Ground Water Well

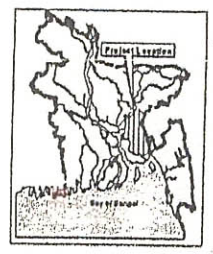
SE-11 Name of the Catchment Area

N

Scale :

4 0 4 8 12 Kilometers

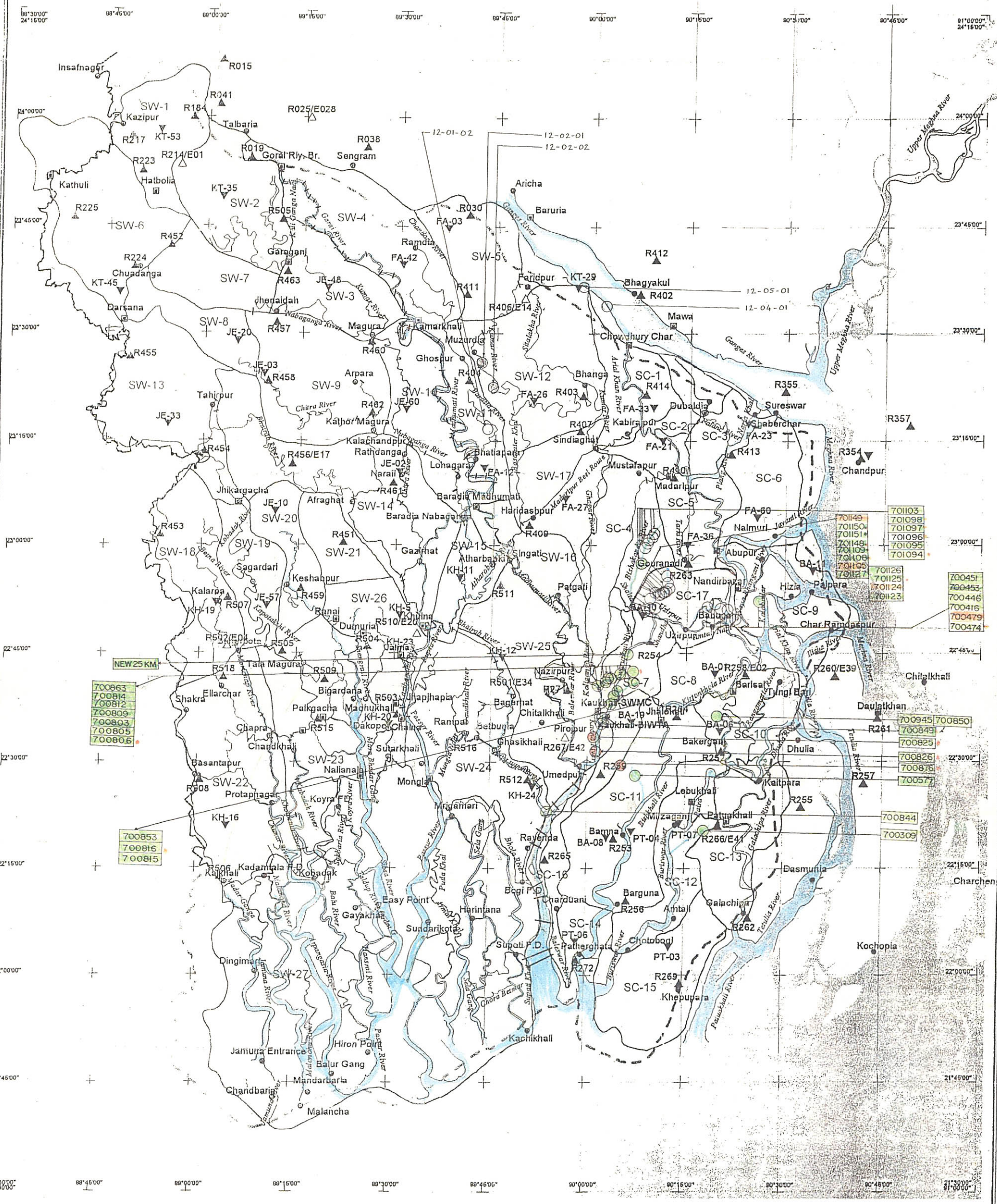
Bangladesh Transverse Mercator Projection



[PC62] D:\P00\WRSoTAM\MMVDATA\APPFILES\Stations and Cross Section.APR ["MMH" 16th September, 1999]
Layout : SE - HDL and HDM - A3

SWMC

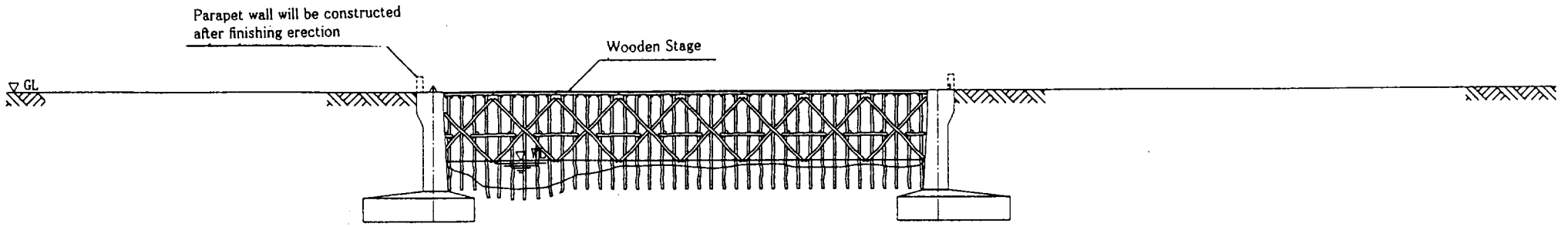
South West Region Model



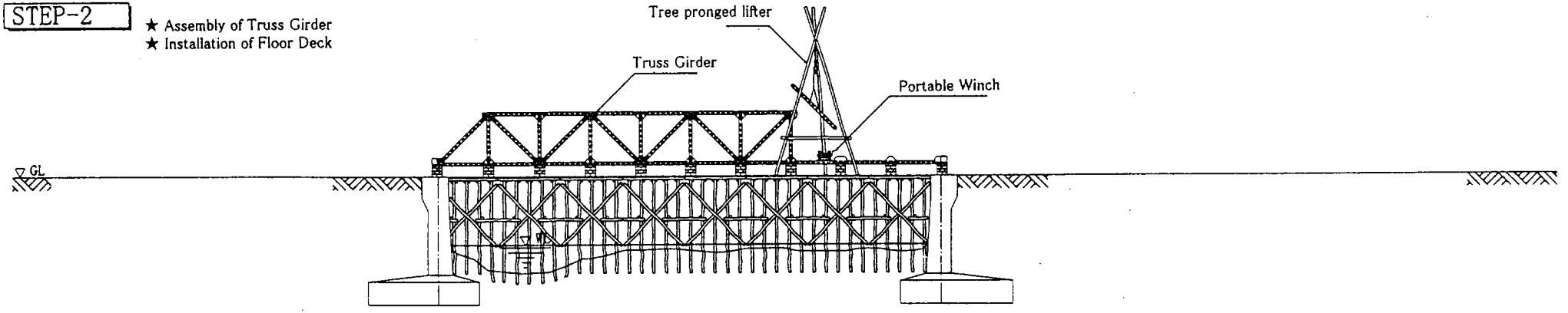
APPENDIX 8

CONCEPTUAL DIAGRAM OF GIRDER ERECTION METHODS

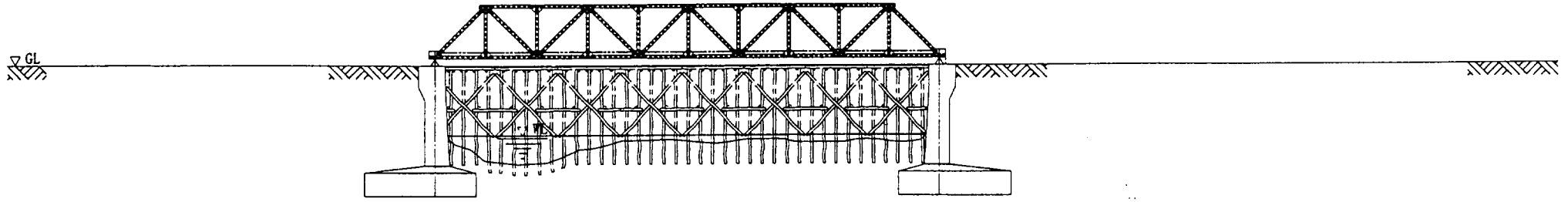
STEP-1 ★ Installation of Wooden Stage



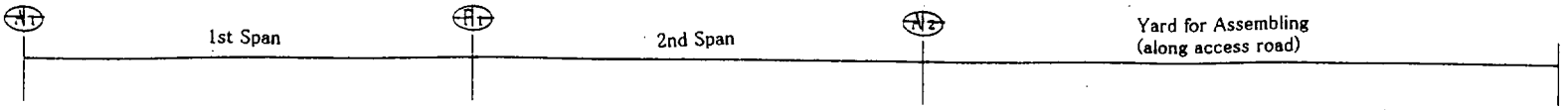
STEP-2
★ Assembly of Truss Girder
★ Installation of Floor Deck



STEP-3
★ Adjustment of Bearing Elevation by Jack
★ Remove of Wooden Stage
★ Completion

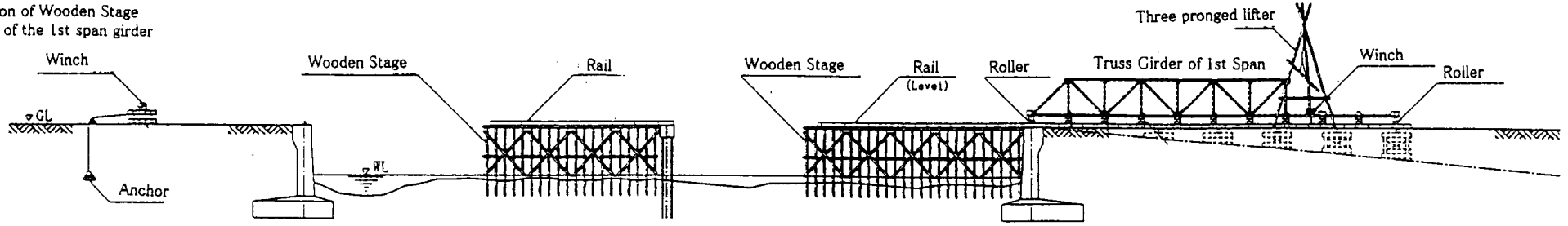


GIRDER ERECTION METHOD (1/2) STAGING ERECTION



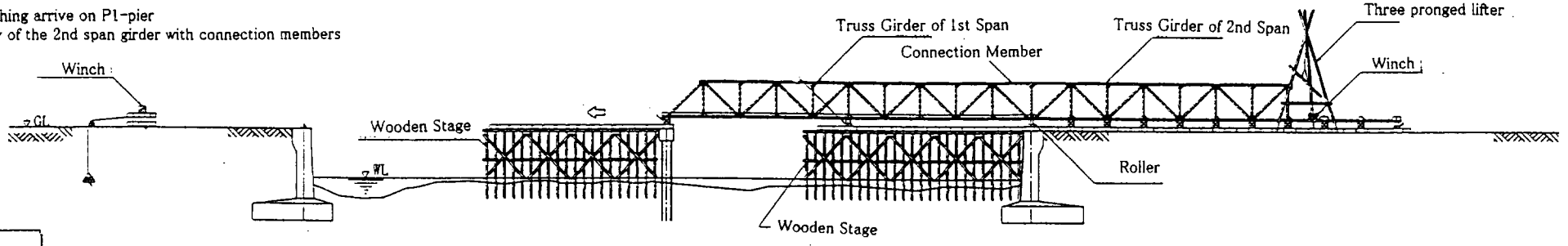
STEP-1

★ Installation of Wooden Stage
★ Assembly of the 1st span girder



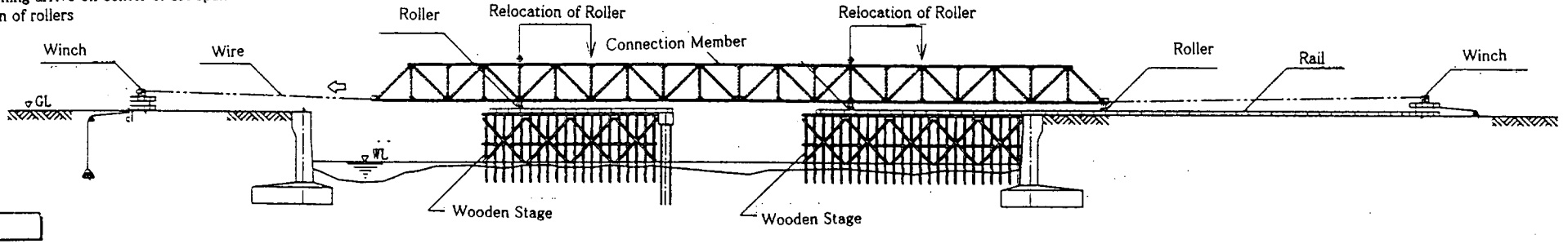
STEP-2

★ 1st launching arrive on P1-pier
★ Assembly of the 2nd span girder with connection members



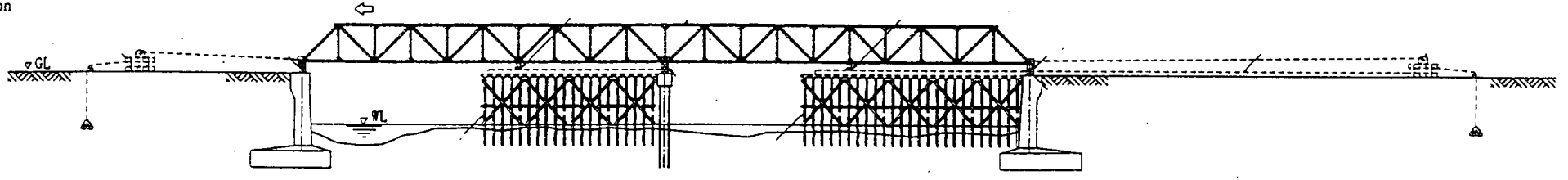
STEP-3

★ 2nd launching arrive on center of 1st span
★ Relocation of rollers



STEP-4

★ 3rd launching arrive on P2-pier
★ Jack-down truss girder to bearing
★ Remove of erection tools and Wooden Stage
★ Completion



A8-2

GIRDER ERECTION METHOD (2/2) DRAW ERECTION

APPENDIX 9

REFERENCES

APPENDIX-9 REFERENCES

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  - －Chittagong
  - －Brahman Baria
  - －Lakshmipur
  - －Chandpur
  - －Maulvi Bazar
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